

10/735, 256

11/12/04

WO 00/58473

PCT/US00/08621

atccaccagg tccggattcc ctggtctgag ttttttgatc ttccaagtct caataaaaac  
360  
atccccgtca tcgagtatga gcagttcatc gcagaatctg gtggggccctt tattgaccag  
420  
gtttacgtcc tgcaaagtta cgcagagggg tggaaagaag ggacctggga agagaagggtg  
480  
gacgagcggc cgtgtattga tcagctctcg tactcccagg acaagcacga gtactacaga  
540  
ggatgggtttt ggggttatga ggagaccagg ggtctaaacg tctcctgtct gtccgtccag  
600  
ggctcagcct ccatcgtggc gcccctgctg ctgagaaaca catcagcccg gtccgtgatg  
660  
ttagacagag ccgagaacct acttcacgac cactatggag ggaaagaata ctgggatacc  
720  
cgtcgcagca tgggtgtttgc caggcacctg cgggaggtgg gagacgagtt caggagcaga  
780  
catctcaact ccacggacga cgcagacagg atccccttcc aggaggactg gatgaagatg  
840  
aagggtcaagc tgggctccgc gctagggggc ccctacctgg gagtccacct gagaagaaaa  
900  
gatttcatct ggggtcacag acaggatgta ccagtcctgg aaggggccgt gaggaagatc  
960  
cgcagcctca tgaagacca cgggctggac aagggtgtttg tggccacaga tgccgtcaga  
1020  
aaggaatatg aagagctaaa aaagctgtta cccgagatgg tgaggtttga acccacgtgg  
1080  
gaggagctgg agctctacaa ggacggaggc gttgcgatta ttgaccagtg gatctgcgca  
1140  
cacgccaggt gcctgcccac gtcactgtcg gccgagagcg ggtcgggtgg ctttcaaagg  
1200  
ttcttctgtc ccaagtactc ggtgtcagag cagatggtcg cctgtgttca cagtggatcat  
1260  
ttccatactg tttgcctcct cgtctgagtc tcctgtagca tctggttcag tgtttccctg  
1320  
ggctgaagtt aattgttcat cttgcccctt tagttctcat gcacagaatt cctccatagc  
1380  
aggctgttgg catagctggc ctcgtctcag aacctcttct tgtgtcgcag tttcccatca  
1440  
ttcccggttt ctgcccctgt ctgcccctg ccctgagagt tgcccgtgcc ctggacttgg  
1500  
gcatgtcctt gttgctgtgt tgttgagcat ccgtgagcgt ccccagggcc gggagcgtgg  
1560  
gccctcgtgt gatcattctc gtggggctgc catgagcgtc cccaaggctg ggagcatggg  
1620  
ccctcgtgtg atcgttcttg tggggctgcc gtgagcgtcc ccgaggccgg gagcgtgggc  
1680  
cctcgtgtga tcattctcgt ggggctgccg tgagcgtccc agaggccggg agcgtgggcc  
1740  
ctgctgagcag tcattctctt ggggttgctg tgggaggtac gcctgggcct ctgttcctcc  
1800  
aaagacctgc ctgcccctct gcataggaga tgaaggctgg ggttaggggtg aaacggtttg  
1860  
agttaaatgg aaaatgaaag tagaggggaat gatcttcccc gtgggttagca ctgtgcacac  
1920

BEST AVAILABLE COPY

gcgtgcgtct ctgtgggtta gtctgtctct ctctgcccc aggaatgctg agcgccctga  
1980  
gccggtgcct cttcacacat ctgctatttc ctgtggtgtt ctgggcatgg tgtataagac  
2040  
ccacagaggc tccgggtgat gctgtctgct ggggtgtgggt ccccttccct gttaagcaga  
2100  
caggatgcag cgctgacttc ttaggtcagg gcggagggtg gcaggagccc agtcacgagc  
2160  
tcacccctgc ttctcaggtg tggccttggg attttgactg cgaccttggc ggtgctgtct  
2220  
ccgcagccca ggaagcctgc tgtggggagg cttcgactg agctctcagc ctctgcccc  
2280  
cagctgcgcg aagcgctcgg ccagctcac tgaagctgcc ctgcctccgg gccggcgcg  
2340  
cctgctctgg caggccccctg tgtgtgggggt ggtgagggtc tccccaccag tgctgcaccc  
2400  
cgcagcagca tacaggcctg tgtggcctgc tggccctgtg gctctgtgta cagcgctgtg  
2460  
catgttacat ttgctctgga aacatctctg gggtttgctt gttcacgaag ttcataagat  
2520  
gccgctggag agccagagac cagctgcgca ggagccggag gaacgggag gccgctgacc  
2580  
tgaggtctgg agaaaccct ggagaagggt gtccccacca gccatacag cgtgtgtgtg  
2640  
gagggggcct tgacctcgt gatgtctact gtgcctcagg ataaggacc gccatgccct  
2700  
ggctagacag tgtgtgggta gtaggaatct ctcatgttc accatgtgac cccaggagg  
2760  
tattcgacct gcactggcgt gcctggcctg ggatttggtg acggagagga gggctcccag  
2820  
ggggacatgc ggtgggacag gagcgtggcg gctgctgact gtgggggtgtg gatggggctg  
2880  
cagcaccagg cagagcccc cagggcgcg atgtcgaggg cacctgagcg aggggtgcca  
2940  
gcaagggggc ggccggctgg tgggtgctcg ggggacggcc gtgttggttc catgtaactg  
3000  
tggaactcat ttactcagc tgctcctctc agttctccct gactctggaa cctctgtgac  
3060  
cccagttctc cctgactctg gaacctctgt gatcctttgc aggttttttt attggcacct  
3120  
cagtctcaac attttctttt cggattcatg aggaaagaga aatcctgggg ttggaccca  
3180  
agacgacgta caacagggtc tgcggagacc aagagaaggc gtgtgagcaa cccaccact  
3240  
ggaagatcac ctactgagga ggatcctcca gggccgctcc ccggaccca caggcgcg  
3300  
tggtatgcagg ttctgtcgcc gtggagtcac cgtctactgc cagccgggag ctgggaggac  
3360  
aggaccgtcc ctgcagggt cccaggccca gaagaggccc cacgcctcta gagctgggct  
3420  
cgtcctcgg cgttgccagc cgccatggct gatgaagagg ctccgctgct ctggggggcg  
3480  
gcggttggtt tcaggcagcg tctgtgaacc cacagctcgg ttgccagcag tgcccgctg  
3540

aaatgtttga agatgccggc gtttccggcc tcaacttggt tcgatgccgt ggttccaccg  
 120  
 atttcgccga tgcggctcat cgcacggtta agaagtttcg tccagataac ccaggacaga  
 180  
 gcaaggata tcaggctcag aaccaggaaa agcagggcctt taccacagtg ccccatatag  
 240  
 accgcgctag ctacggcaaa aggcgcgccc agtgggggtcc aggacagcac tttcatggct  
 300  
 gaagggagcg catcccnagc ttgccttagc cccagagcta acccagcgac cagtggacca  
 360  
 gcgccccatca tcagtaggaa ccctacgata atcagccctt gttttacccc tggaatggag  
 420  
 ctgatttcn  
 429

<210> 190  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 190  
 Met Met Gly Ala Gly Pro Leu Val Ala Gly Leu Ala Leu Gly Leu Gly  
 1 5 10 15  
 Glu Ala Xaa Asp Ala Leu Pro Ser Ala Met Lys Val Leu Ser Trp Thr  
 20 25 30  
 Pro Leu Gly Ala Pro Phe Ala Val Ala Ser Ala Val Tyr Met Gly His  
 35 40 45  
 Trp Gly Lys Ala Leu Leu Phe Leu Val Leu Ser Leu Ile Tyr Leu Ala  
 50 55 60  
 Leu Ser Trp Val Ile Trp Thr Lys Leu Leu Asn Arg Ala Met Ser Arg  
 65 70 75 80  
 Ile Gly Glu Ile Gly Gly Thr Thr Ala Ser Lys Gln Val Glu Ala Gly  
 85 90 95  
 Asn Ala Gly Ile Phe Lys His Phe Thr Ala Ser Pro Arg Gly Ala Ile  
 100 105 110  
 Ala Ala Arg Thr Val His Met Leu Val Asn His  
 115 120

<210> 191  
 <211> 4845  
 <212> DNA  
 <213> Homo sapiens

<400> 191  
 ccgccccggg ccatggcgac actcagcttc gtcttccctgc tgctgggggc agtgctcctg  
 60  
 cctccggctt ctgcctccgg ccaggagttc tggcccgagc aatcggcggc cgatattctg  
 120  
 tcggggggcg cttcccgag acggtatctt ctgtatgacg tcaaccccc ggaaggcttc  
 180  
 aacctgcgca gggatgtcta tatccgaatc gcctctctcc tgaagactct gctgaagacg  
 240  
 gaggagtggg tgcttgcct gcctccatgg ggccgcctct atcactggca gagtccctgac  
 300

gtgaccacaga agcaggagtg tttgtcaggc tcccgtcttg gcctttccag ccacctttca  
 3600  
 tgtcttcata ttttaagtgc attgaggata gatgcaggcg ggtgagctgc cctccgtcag  
 3660  
 gtggaccocgg gctgacattt ccctgggagc tggtgcaagg agaagcgtca ttttaaatgt  
 3720  
 ctgcagagcg accagggggcc tcatgaatct ctccgttgcc ctccgcgcag caggaggctg  
 3780  
 cctgtgtgtt tcctcctggg acgcgtgcaa ggcagacctg gtgctgcaaa ggaaagggcc  
 3840  
 tgaggcctca gggagccccg tggagggatg acagttcagg ccctactgct ggcacgtcag  
 3900  
 agcactggga agtttttcag tgacgtctct ggggcactca gtggattgtc tgtaggaaac  
 3960  
 ttgcagctct gctcctcaca ccaggccccg ctggccaccc accctcgccc cactggcca  
 4020  
 cccctccctc gccccgactg ccccgcccca cctcaccct gactgccccg ccctcgcccc  
 4080  
 gctggccgtc cctgcctctg ccccggtctg caggtgcaca tggggcctcc aggtctgcca  
 4140  
 ttcgtatttg agaactagaa atgaggaagg acagttacgc taactccaaa aggtgttcta  
 4200  
 ggatgagctg ctttatcagg gagctccttg taccattttt acagaaatca ttttaggtc  
 4260  
 tttgtgccac caccacgagg ggcattctga aagagggcaa cgctagacac agaattcgtg  
 4320  
 gaaggtgcag cagtgcctca ggggtcctca gggtcaggga gccccctca ccctcttggc  
 4380  
 ccgttaccct ttgtgacttt ccaccatggt gtcgtgtgac cctcagtcag gttgggtggg  
 4440  
 gctgagtcct cactgagcag ccactttcca catctgctag aggaacagt acatggacac  
 4500  
 ctgtgacaga gagaggacag ttagtgagga gggacagaca gctcttcctt tcggagcctg  
 4560  
 gctagtctag gacatcacct tgetgtgtct tctcaagctt ttaaaattga ccctgaacgt  
 4620 cctatggtgt tactcaaagc tgtgcagggt aaatgatgac atatttattc 4680  
 tttttccatt tgttctagaa acagtgcctt tttcatcagt tgcattttcc aggtgagag  
 4740  
 ctgtataaaa cattttggac tgtgaccatg taccttcctt ttaagaaaa ataaactgct  
 4800  
 ttatggaagt tggtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4845

&lt;210&gt; 192

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 192

Pro Pro Gly Ala Met Ala Thr Leu Ser Phe Val Phe Leu Leu Leu Gly  
 1 5 10 15  
 Ala Val Ser Trp Pro Pro Ala Ser Ala Ser Gly Gln Glu Phe Trp Pro  
 20 25 30  
 Gly Gln Ser Ala Ala Asp Ile Leu Ser Gly Ala Ala Ser Arg Arg Arg



```

      35              40              45
Tyr Leu Leu Tyr Asp Val Asn Pro Pro Glu Gly Phe Asn Leu Arg Arg
  50              55              60
Asp Val Tyr Ile Arg Ile Ala Ser Leu Leu Lys Thr Leu Leu Lys Thr
  65              70              75              80
Glu Glu Trp Val Leu Val Leu Pro Pro Trp Gly Arg Leu Tyr His Trp
      85              90              95
Gln Ser Pro Asp Ile His Gln Val Arg Ile Pro Trp Ser Glu Phe Phe
      100              105              110
Asp Leu Pro Ser Leu Asn Lys Asn Ile Pro Val Ile Glu Tyr Glu Gln
      115              120              125
Phe Ile Ala Glu Ser Gly Gly Pro Phe Ile Asp Gln Val Tyr Val Leu
      130              135              140
Gln Ser Tyr Ala Glu Gly Trp Lys Glu Gly Thr Trp Glu Glu Lys Val
      145              150              155              160
Asp Glu Arg Pro Cys Ile Asp Gln Leu Leu Tyr Ser Gln Asp Lys His
      165              170              175
Glu Tyr Tyr Arg Gly Trp Phe Trp Gly Tyr Glu Glu Thr Arg Gly Leu
      180              185              190
Asn Val Ser Cys Leu Ser Val Gln Gly Ser Ala Ser Ile Val Ala Pro
      195              200              205
Leu Leu Leu Arg Asn Thr Ser Ala Arg Ser Val Met Leu Asp Arg Ala
      210              215              220
Glu Asn Leu Leu His Asp His Tyr Gly Gly Lys Glu Tyr Trp Asp Thr
      225              230              235              240
Arg Arg Ser Met Val Phe Ala Arg His Leu Arg Glu Val Gly Asp Glu
      245              250              255
Phe Arg Ser Arg His Leu Asn Ser Thr Asp Asp Ala Asp Arg Ile Pro
      260              265              270
Phe Gln Glu Asp Trp Met Lys Met Lys Val Lys Leu Gly Ser Ala Leu
      275              280              285
Gly Gly Pro Tyr Leu Gly Val His Leu Arg Arg Lys Asp Phe Ile Trp
      290              295              300
Gly His Arg Gln Asp Val Pro Ser Leu Glu Gly Ala Val Arg Lys Ile
      305              310              315              320
Arg Ser Leu Met Lys Thr His Arg Leu Asp Lys Val Phe Val Ala Thr
      325              330              335
Asp Ala Val Arg Lys Glu Tyr Glu Glu Leu Lys Lys Leu Leu Pro Glu
      340              345              350
Met Val Arg Phe Glu Pro Thr Trp Glu Glu Leu Glu Leu Tyr Lys Asp
      355              360              365
Gly Gly Val Ala Ile Ile Asp Gln Trp Ile Cys Ala His Ala Arg Cys
      370              375              380
Leu Pro Thr Ser Leu Ser Ala Glu Ser Gly Ser Gly Gly Phe Gln Arg
      385              390              395              400
Phe Phe Cys Pro Lys Tyr Ser Val Ser Glu Gln Met Val Ala Cys Val
      405              410              415
His Ser Gly His Phe His Thr Val Cys Leu Leu Val
      420              425

```

&lt;210&gt; 193

&lt;211&gt; 350

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 193

gcccggcgagc tggactgccc catcatggcc gagcccttcc ccgacaccgg cctggccacg  
60  
gcgcagctgt acgacgagcc ctctgctgct gcgctgcggg cgtcgcaccc gctggccgac  
120  
cgtgccagca tcagccccga ggaggtcaag ggcgagacca tgttgatgtt gggcacgggc  
180  
ccctggtttc cccgggcccc cggtgggggt ttggcccga tttggcgct ttctccagcg  
240  
ccgttaaggg catacgccgc agtttcgagg gctcgtcgtt ggagaccatc aagcacatcg  
300  
tggcttcggg catggcgtga cggtggtgcc gcagctgtcc gtgccgcgcg  
350

&lt;210&gt; 194

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 194

Ala	Gly	Glu	Leu	Asp	Cys	Ala	Ile	Met	Ala	Glu	Pro	Phe	Pro	Asp	Thr
1				5				10					15		
Gly	Leu	Ala	Thr	Ala	Gln	Leu	Tyr	Asp	Glu	Pro	Phe	Val	Val	Ala	Leu
		20						25				30			
Arg	Ala	Ser	His	Pro	Leu	Ala	Asp	Arg	Ala	Ser	Ile	Ser	Pro	Glu	Glu
		35					40				45				
Val	Lys	Gly	Glu	Thr	Met	Leu	Met	Leu	Gly	Thr	Gly	Pro	Trp	Phe	Pro
	50				55				60						
Arg	Ala	Arg	Gly	Gly	Gly	Leu	Ala	Arg	Ile	Trp	Arg	Val	Ser	Pro	Ala
65				70				75				80			
Pro	Leu	Arg	Ala	Tyr	Ala	Ala	Val	Ser	Arg	Ala	Arg	Arg	Trp	Arg	Pro
			85					90				95			
Ser	Ser	Thr	Ser	Trp	Leu	Arg	Ala	Trp	Arg	Asp	Gly	Gly	Ala	Ala	Ala
		100					105					110			
Val	Arg	Ala	Ala												
		115													

&lt;210&gt; 195

&lt;211&gt; 495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 195

acgcgtgaac gcgacggctt ggcgatcgga ggcgtcgccc ccgtcgttga gtgggbcggt  
60  
gaaatggttc gcttcgacga aagcgagact ctcgaccgcc ttgcatcggg cgtccttgaa  
120  
ccagaacttg gcgacgattt ggccgcccgc ctgctcgatt ctcacgggtt tgctgtcatc  
180  
agcgagggat cgaactggct tgcctcgcta cccgtgatcg taggtcgcaa cacggaacag  
240  
tttcgcagca taccagacct tgcccgcgac cggatcgaca aactgcacca gttgagccat  
300

cgcgaaatag cacgaaatcg cgagctcctg cgtgcccgcg ctgcgtcggg gcaggtgcgg  
 360  
 cactgccacg gcgacgcaca cctcggcaac atcgtcatga ttgacggcaa gccggtcctg  
 420  
 ttcgacgcga tcgaatttga tcctgatatc gcgacaacgg atgtgctgta cgatttcgcg  
 480  
 ttccctctga tggat  
 495

<210> 196  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

<400> 196  
 Thr Arg Glu Arg Asp Gly Leu Ala Ile Gly Gly Val Gly Pro Val Val  
 1 5 10 15  
 Glu Trp Ala Val Glu Met Val Arg Phe Asp Glu Ser Glu Thr Leu Asp  
 20 25 30  
 Arg Leu Ala Ser Gly Val Leu Glu Pro Glu Leu Gly Asp Asp Leu Ala  
 35 40 45  
 Ala Val Leu Leu Asp Ser His Arg Val Ala Val Ile Ser Glu Gly Ser  
 50 55 60  
 Asn Trp Leu Ala Ser Leu Pro Val Ile Val Gly Arg Asn Thr Glu Gln  
 65 70 75 80  
 Phe Arg Ser Ile Pro Asp Leu Ala Arg Asp Arg Ile Asp Lys Leu His  
 85 90 95  
 Gln Leu Ser His Arg Glu Ile Ala Arg Asn Arg Glu Leu Leu Arg Ala  
 100 105 110  
 Arg Ala Ala Ser Gly Gln Val Arg His Cys His Gly Asp Ala His Leu  
 115 120 125  
 Gly Asn Ile Val Met Ile Asp Gly Lys Pro Val Leu Phe Asp Ala Ile  
 130 135 140  
 Glu Phe Asp Pro Asp Ile Ala Thr Thr Asp Val Leu Tyr Asp Phe Ala  
 145 150 155 160  
 Phe Pro Leu Met Asp  
 165

<210> 197  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 197  
 caagcaatgc ttgacgcagt tgttgaatac ttaccagcac cgactgatat tccagcaatc  
 60  
 aaaggtatca atccagatga aactgaaggt gaacgtcacg caagcgatga tgagccattc  
 120  
 tcttcattag cattcaaaat tgcaactgac ccattcgtag gtaacttaac cttcttccgt  
 180  
 gtgtactcag gtgtaattaa ctctggtgat acagtattaa actctgtacg tcaaaaacgt  
 240  
 gaacgttttg gtcgtatcgt acagatgcac gctaataaac gtgaagaaat taaagaagtt  
 300

cgtgcgggcg atatcgctgc agcaatcggc ttaaaagatg taactacggg tgaaccatta  
360  
tgtgctgtcg atgcaccaat cattcttgag cgtatggaat tc  
402

<210> 198

<211> 134

<212> PRT

<213> Homo sapiens

<400> 198

Gln	Ala	Met	Leu	Asp	Ala	Val	Val	Glu	Tyr	Leu	Pro	Ala	Pro	Thr	Asp
1			5					10					15		
Ile	Pro	Ala	Ile	Lys	Gly	Ile	Asn	Pro	Asp	Glu	Thr	Glu	Gly	Glu	Arg
		20					25					30			
His	Ala	Ser	Asp	Asp	Glu	Pro	Phe	Ser	Ser	Leu	Ala	Phe	Lys	Ile	Ala
	35						40					45			
Thr	Asp	Pro	Phe	Val	Gly	Asn	Leu	Thr	Phe	Phe	Arg	Val	Tyr	Ser	Gly
	50				55				60						
Val	Ile	Asn	Ser	Gly	Asp	Thr	Val	Leu	Asn	Ser	Val	Arg	Gln	Lys	Arg
65				70					75				80		
Glu	Arg	Phe	Gly	Arg	Ile	Val	Gln	Met	His	Ala	Asn	Lys	Arg	Glu	Glu
		85					90					95			
Ile	Lys	Glu	Val	Arg	Ala	Gly	Asp	Ile	Ala	Ala	Ala	Ile	Gly	Leu	Lys
	100						105					110			
Asp	Val	Thr	Thr	Gly	Glu	Pro	Leu	Cys	Ala	Val	Asp	Ala	Pro	Ile	Ile
	115					120					125				
Leu	Glu	Arg	Met	Glu	Phe										
	130														

<210> 199

<211> 507

<212> DNA

<213> Homo sapiens

<400> 199

acgcgtgaag tcgtgcatag atcgggtgtga catagagaag cctccgaccc aagctgcgta  
60  
tattgcacaa agaccaagcg accctggacg ttctagacag aactctgcta cgaggcctga  
120  
caatagtga atccccgaga acccagctat ggaagggttt ccagatgctc gaaggcctgt  
180  
cataccagag gttagggttaa actgtatgga gactttcgag gtgaaagttg actcgccggt  
240  
aaagcctgct cctaaagagg atttagatct gatagatcta tcctcagatt caacctcggg  
300  
gcctgaaaaa cactctatac tctcaacctc cgacagcgac tctcttgat ttgagcctct  
360  
tccctctctc agaatagtcg agagtgcga agaagaggag acgatgaacc aaggcgatga  
420  
cgccccctcc ggtaaaaatg ctgcctcttc tccctccatc cccagccatc cctccgtcct  
480  
cagcctgagc acagctccgc ttgtaca  
507

<210> 200  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 200  
 Met Glu Gly Glu Glu Ala Ala Phe Leu Pro Glu Gly Pro Ser Ser Pro  
 1 5 10 15  
 Trp Phe Ile Val Ser Ser Ser Ser Ser Leu Ser Thr Ile Leu Arg Glu  
 20 25 30  
 Gly Arg Gly Ser Asn Thr Arg Glu Ser Leu Ser Glu Val Glu Ser Ile  
 35 40 45  
 Glu Cys Phe Ser Gly Pro Glu Val Glu Ser Glu Asp Arg Ser Ile Arg  
 50 55 60  
 Ser Lys Ser Ser Leu Gly Ala Gly Phe Thr Gly Glu Ser Thr Phe Thr  
 65 70 75 80  
 Ser Lys Val Ser Ile Gln Phe Asn Leu Thr Ser Gly Met Thr Gly Leu  
 85 90 95  
 Arg Ala Ser Gly Asn Pro Ser Ile Ala Gly Phe Ser Gly Ile Ser Leu  
 100 105 110  
 Leu Ser Gly Leu Val Ala Glu Phe Cys Leu Glu Arg Pro Gly Ser Leu  
 115 120 125  
 Gly Leu Cys Ala Ile Tyr Ala Ala Trp Val Gly Gly Phe Ser Met Ser  
 130 135 140  
 His Arg Ser Met His Asp Phe Thr Arg  
 145 150

<210> 201  
 <211> 527  
 <212> DNA  
 <213> Homo sapiens

<400> 201  
 gatgtggcta ttatccctgt ttcccagggtg agaaacaggg tcagtgatag agctgggatg  
 60  
 tgtgacctgca ggctcaccag ccagtcacct cctcaccaag gatgatgttc tccgtgggtga  
 120  
 gctgggtcctt ggtctcctgg aactcgtggc gcacctgggc cagctgcgcc tcgaaggcat  
 180  
 ccttctccat ctctttggct agctgcaagt tctggagctg ctggttgagg tctgtgatct  
 240  
 catccacctg ctggttgagc gtgcgcttga ggaaggccac aatctccttc ttgttattgg  
 300  
 ccagctgctc aaactcctgg cggaacatct tctcctgcac agccagctca tcccacttcc  
 360  
 gctgggtaccg ggctagccgg tctccaggt ctcgatctg gatgtggtag aactccttca  
 420  
 tctccttggc cagaggcggc tccacggcca ccaccggctc cttcttgccc cctttcttct  
 480  
 tgacttcaag ctcttgctt gccttgetca cactcttttt gggaggc  
 527

<210> 202

<211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 202  
 Gly Arg Pro Gln Ser Pro Ser Cys Tyr Trp Pro Ala Ala Gln Thr Pro  
 1 5 10 15  
 Gly Gly Thr Ser Ser Pro Ala Gln Pro Ala His Pro Thr Ser Ala Gly  
 20 25 30  
 Thr Gly Leu Ala Gly Pro Pro Gly Leu Gly Ser Gly Cys Gly Arg Thr  
 35 40 45  
 Pro Ser Ser Pro Trp Pro Glu Ala Ala Pro Arg Pro Pro Ala Pro  
 50 55 60  
 Ser Cys Pro Leu Ser Ser  
 65 70

<210> 203  
 <211> 304  
 <212> DNA  
 <213> Homo sapiens

<400> 203  
 ngtgcaccgg tggatcatgga caacgccgcc tacgtggtct acacctcggg atccaccggc  
 60  
 cgacccaagg gagttgtcgt caccacacacc ggactcgaca gcttcgcact cgaccagcag  
 120  
 cgctcgattcc acgcagatca ccactctcga accctgcact tcgccacccc cagcttcgac  
 180  
 ggagccgtct tcgagtacct gcaggcattc ggtgtcggag ccaccatggt gatcgtcccg  
 240  
 accgacatct acggcggcgc cgaactggca agtctcatcc gccgcgaaca cgtcactcac  
 300  
 gcgt  
 304

<210> 204  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 204  
 Xaa Ala Pro Val Val Met Asp Asn Ala Ala Tyr Val Val Tyr Thr Ser  
 1 5 10 15  
 Gly Ser Thr Gly Arg Pro Lys Gly Val Val Val Thr His Thr Gly Leu  
 20 25 30  
 Asp Ser Phe Ala Leu Asp Gln Gln Arg Arg Phe His Ala Asp His His  
 35 40 45  
 Ser Arg Thr Leu His Phe Ala Thr Pro Ser Phe Asp Gly Ala Val Phe  
 50 55 60  
 Glu Tyr Leu Gln Ala Phe Gly Val Gly Ala Thr Met Val Ile Val Pro  
 65 70 75 80  
 Thr Asp Ile Tyr Gly Gly Ala Glu Leu Ala Ser Leu Ile Arg Arg Glu  
 85 90 95  
 His Val Thr His Ala

100

<210> 205  
 <211> 356  
 <212> DNA  
 <213> Homo sapiens

<400> 205  
 nngaattcag caatgataac tggctcaatt gaaggtaaga caacaattga gggaattaat  
 60  
 gcacaattaa atacagtgtt aactttattt tcaccacaat caaaagataa agatttaatc  
 120  
 atgccagatc aacaagaaga aatagatatt ctgattgcaa ccgactgtat ttcagaagga  
 180  
 cagaacttac aagattgtga ttacttaata aactatgaca ttcattggaa tccagttcgt  
 240  
 atcattcaaa gatttggacg gattgatcga attggttcga agaataaatg tgtacaatta  
 300  
 gttaactttt ggccagatat tacattagat gaatatattg atctaaaggg acgcgt  
 356

<210> 206  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 206  
 Xaa Asn Ser Ala Met Ile Thr Gly Ser Ile Glu Gly Lys Thr Thr Ile  
 1 5 10 15  
 Glu Gly Ile Asn Ala Gln Leu Asn Thr Val Leu Thr Leu Phe Ser Pro  
 20 25 30  
 Gln Ser Lys Asp Lys Asp Leu Ile Met Pro Asp Gln Gln Glu Glu Ile  
 35 40 45  
 Asp Ile Leu Ile Ala Thr Asp Cys Ile Ser Glu Gly Gln Asn Leu Gln  
 50 55 60  
 Asp Cys Asp Tyr Leu Ile Asn Tyr Asp Ile His Trp Asn Pro Val Arg  
 65 70 75 80  
 Ile Ile Gln Arg Phe Gly Arg Ile Asp Arg Ile Gly Ser Lys Asn Lys  
 85 90 95  
 Cys Val Gln Leu Val Asn Phe Trp Pro Asp Ile Thr Leu Asp Glu Tyr  
 100 105 110  
 Ile Asp Leu Lys Gly Arg  
 115

<210> 207  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 catggtgtgt gcacgtgtng cactgtgtgt ggatgcatgg taatgtgcac gtgtgcactg  
 120

tgtgtggtgt gtagcatgg tgtgtgcacg tgtgcactgt gtgtgtgtgt atgcatgtgt  
 180  
 gtgcacatgt gcactgtgtg gtgtgtatgc atgggtgtgtg cacgtgtgca ctgtgtatgc  
 240  
 atgngtgtgt gcatgtgtgc actgtgtatg catagtgtgc acgtgtgcac tgtgtggtgt  
 300  
 gtatgcatgg taatgtgcac gtgt  
 324

<210> 208  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 208  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met His Gly Val Cys Thr Cys Xaa Thr Val Cys Gly Cys  
 20 25 30  
 Met Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val  
 35 40 45  
 Cys Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Met Cys  
 50 55 60  
 Thr Val Trp Cys Val Cys Met Val Cys Ala Arg Val His Cys Val Cys  
 65 70 75 80  
 Met Xaa Val Cys Met Cys Ala Leu Cys Met His Ser Val His Val Cys  
 85 90 95  
 Thr Val Trp Cys Val Cys Met Val Met Cys Thr Cys  
 100 105

<210> 209  
 <211> 168  
 <212> DNA  
 <213> Homo sapiens

<400> 209  
 nntccagag gttatgaggt tggaagcccg gtttttttca ggtgcagaaa aggctaccat  
 60  
 attcaagggt ccacgactcg cacctgcctt gccaatttaa catggagtgg gatacagacc  
 120  
 gaatgtatac ctcatgcctg cagacagcca gaaaccccg cacacgcg  
 168

<210> 210  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 210  
 Xaa Ser Arg Gly Tyr Glu Val Gly Ser Pro Val Phe Phe Arg Cys Arg  
 1 5 10 15  
 Lys Gly Tyr His Ile Gln Gly Ser Thr Thr Arg Thr Cys Leu Ala Asn  
 20 25 30  
 Leu Thr Trp Ser Gly Ile Gln Thr Glu Cys Ile Pro His Ala Cys Arg



35 40 45  
Gln Pro Glu Thr Pro Ala His Ala  
50 55

<210> 211  
<211> 354  
<212> DNA  
<213> Homo sapiens

<400> 211  
tacatgggct ttgacacagt ggtggctgaa gctgcactaa ggtgttttg aggcaatgtc  
60  
cagctggcag ctcagaccct tgcacacat ggaggaagcc tcccaccga cctgcagttc  
120  
tcaggagagg actcctcccc cacaccgtcc acatcccat ctgactctgc agggacctct  
180  
agtgcctcga cagatgaaga catggagacg gaggtgtca acgaaatcct ggaggacatt  
240  
ccggagcagc agggaggacta cctggactcc acgctggagg atgaagaagt cattattgct  
300  
gaatacttgt cctgcgttga aagtataagt tctgccngca aagaacaact gatc  
354

<210> 212  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 212  
Tyr Met Gly Phe Asp Thr Val Val Ala Glu Ala Ala Leu Arg Val Phe  
1 5 10 15  
Gly Gly Asn Val Gln Leu Ala Ala Gln Thr Leu Ala His His Gly Gly  
20 25 30  
Ser Leu Pro Pro Asp Leu Gln Phe Ser Gly Glu Asp Ser Ser Pro Thr  
35 40 45  
Pro Ser Thr Ser Pro Ser Asp Ser Ala Gly Thr Ser Ser Ala Ser Thr  
50 55 60  
Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu Ile Leu Glu Asp Ile  
65 70 75 80  
Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr Leu Glu Asp Glu Glu  
85 90 95  
Val Ile Ile Ala Glu Tyr Leu Ser Cys Val Glu Ser Ile Ser Ser Ala  
100 105 110  
Xaa Lys Glu Gln Leu Ile  
115

<210> 213  
<211> 669  
<212> DNA  
<213> Homo sapiens

<400> 213  
attgcccaat ctcagagtgt ccaggaaagc ctggagagcc tgttgagtc tattggggaa  
60

gttgaacaaa acctggaagg gaaacaggtg tcatcactct catcaggagt catccaggaa  
 120  
 gccttagcca caaatatgaa attgaagcag gacattgctc ggcaaaagag cagcttgagag  
 180  
 gccacccgtg agatggtgac ccgattcatg gagacagcag acagtactac agcagcagtg  
 240  
 ctgcagggca aactggcaga ggtgagccag cggttcgaac agctctgtct acagcagcaa  
 300  
 gaaaaggaga gctccctaaa gaagcttcta cccagggcag agatgtttga acacctctct  
 360  
 ggtaagctgc agcagttcat ggaaaacaaa agtcggatgc tggcctctgg aaatcagcca  
 420  
 gatcaagata ttacacattt cttccaacag atccaggagc tcaatttgga aatggaagac  
 480  
 caacaggaga acctagatac tcttgagcac ctggtcactg aactgagctc ttgtggcttt  
 540  
 gcgctggact tgtgccagca tcaggacagg gtacagaatc taagaaaaga cttcacagag  
 600  
 ctacagaaga cagttaaaga gagagagaaa gatgcatcat cttgccagga acagttggat  
 660  
 gaattccgg  
 669

<210> 214

<211> 223

<212> PRT

<213> Homo sapiens

<400> 214

Ile	Ala	Gln	Ser	Gln	Ser	Val	Gln	Glu	Ser	Leu	Glu	Ser	Leu	Leu	Gln
1				5					10					15	
Ser	Ile	Gly	Glu	Val	Glu	Gln	Asn	Leu	Glu	Gly	Lys	Gln	Val	Ser	Ser
		20						25					30		
Leu	Ser	Ser	Gly	Val	Ile	Gln	Glu	Ala	Leu	Ala	Thr	Asn	Met	Lys	Leu
		35					40					45			
Lys	Gln	Asp	Ile	Ala	Arg	Gln	Lys	Ser	Ser	Leu	Glu	Ala	Thr	Arg	Glu
	50					55					60				
Met	Val	Thr	Arg	Phe	Met	Glu	Thr	Ala	Asp	Ser	Thr	Thr	Ala	Ala	Val
65					70				75					80	
Leu	Gln	Gly	Lys	Leu	Ala	Glu	Val	Ser	Gln	Arg	Phe	Glu	Gln	Leu	Cys
			85						90					95	
Leu	Gln	Gln	Gln	Glu	Lys	Glu	Ser	Ser	Leu	Lys	Lys	Leu	Leu	Pro	Gln
			100					105					110		
Ala	Glu	Met	Phe	Glu	His	Leu	Ser	Gly	Lys	Leu	Gln	Gln	Phe	Met	Glu
		115					120					125			
Asn	Lys	Ser	Arg	Met	Leu	Ala	Ser	Gly	Asn	Gln	Pro	Asp	Gln	Asp	Ile
	130					135						140			
Thr	His	Phe	Phe	Gln	Gln	Ile	Gln	Glu	Leu	Asn	Leu	Glu	Met	Glu	Asp
145					150				155					160	
Gln	Gln	Glu	Asn	Leu	Asp	Thr	Leu	Glu	His	Leu	Val	Thr	Glu	Leu	Ser
			165					170					175		
Ser	Cys	Gly	Phe	Ala	Leu	Asp	Leu	Cys	Gln	His	Gln	Asp	Arg	Val	Gln
			180					185					190		
Asn	Leu	Arg	Lys	Asp	Phe	Thr	Glu	Leu	Gln	Lys	Thr	Val	Lys	Glu	Arg

195                      200                      205  
 Glu Lys Asp Ala Ser Ser Cys Gln Glu Gln Leu Asp Glu Phe Arg  
 210                      215                      220

<210> 215  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

<400> 215  
 aaatttcgta cccgctccgg cacagtacga gcccttgacg atgtgagcct ggctattaag  
 60  
 agagggttcca tctcagccgt tateggggcac tccggagccg gcaaattccac cctgggttcgc  
 120  
 ctcatcaacg gattagagac tcccacgcgt ggccgcgtct tggtagacgg caccgacgtc  
 180  
 tcgcagctct cggacaaaagc gatgcgcccgc ctacgcgcag acatcgggat gatcttccaa  
 240  
 cagttcaacc tattcggctc aaggaccatc tacgacaacg ttgcctatcc actcaagctg  
 300  
 gctcattgga agaaagcaga cgagaagaag cgcgtcaccg aattgctgag ctcgctcggg  
 360  
 ttgacgagca aagcctggga ccatccagac cagctctcgg gcggacagaa acagcgggtt  
 420  
 ggtattgccc gagcgctagc aactaaacca tcgattttgt tggctgacga gtccacctcg  
 480  
 gcgctggatc cagaaacgac agctgatgtc ctatccctgc tcaagcgggt caatgcggaa  
 540  
 ctaggggtga cggctcgtct catcacccac gagatggagg tcgtccgctc gattgcccag  
 600  
 caggtctcgg tactagcagc tggccatctc gtcgagctctg gaagcgcccgc ccaggtcttc  
 660  
 gctcatccac agtcagagac caccagcgt ttcctggcga cgattatcgg ccagcaccgc  
 720  
 agtggggagg aacaggcacg gttgcagtcg gaaaaccag atgcacgact cgtcgacgtc  
 780  
 agttcgggtgg ccagtcactc gttcgggtgac gcgt  
 814

<210> 216  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 216  
 Lys Phe Arg Thr Arg Ser Gly Thr Val Arg Ala Leu Asp Asp Val Ser  
 1                      5                      10                      15  
 Leu Ala Ile Lys Arg Gly Ser Ile Ser Ala Val Ile Gly His Ser Gly  
 20                      25                      30  
 Ala Gly Lys Ser Thr Leu Val Arg Leu Ile Asn Gly Leu Glu Thr Pro  
 35                      40                      45  
 Thr Arg Gly Arg Val Leu Val Asp Gly Thr Asp Val Ser Gln Leu Ser  
 50                      55                      60  
 Asp Lys Ala Met Arg Pro Leu Arg Ala Asp Ile Gly Met Ile Phe Gln

65					70					75					80
Gln	Phe	Asn	Leu	Phe	Gly	Ser	Arg	Thr	Ile	Tyr	Asp	Asn	Val	Ala	Tyr
				85					90					95	
Pro	Leu	Lys	Leu	Ala	His	Trp	Lys	Lys	Ala	Asp	Glu	Lys	Lys	Arg	Val
			100					105					110		
Thr	Glu	Leu	Leu	Ser	Phe	Val	Gly	Leu	Thr	Ser	Lys	Ala	Trp	Asp	His
			115				120					125			
Pro	Asp	Gln	Leu	Ser	Gly	Gly	Gln	Lys	Gln	Arg	Val	Gly	Ile	Ala	Arg
	130					135					140				
Ala	Leu	Ala	Thr	Lys	Pro	Ser	Ile	Leu	Leu	Ala	Asp	Glu	Ser	Thr	Ser
145					150					155					160
Ala	Leu	Asp	Pro	Glu	Thr	Thr	Ala	Asp	Val	Leu	Ser	Leu	Leu	Lys	Arg
			165						170					175	
Val	Asn	Ala	Glu	Leu	Gly	Val	Thr	Val	Val	Val	Ile	Thr	His	Glu	Met
			180					185					190		
Glu	Val	Val	Arg	Ser	Ile	Ala	Gln	Gln	Val	Ser	Val	Leu	Ala	Ala	Gly
		195					200					205			
His	Leu	Val	Glu	Ser	Gly	Ser	Ala	Arg	Gln	Val	Phe	Ala	His	Pro	Gln
	210					215					220				
Ser	Glu	Thr	Thr	Gln	Arg	Phe	Leu	Ala	Thr	Ile	Ile	Gly	Gln	His	Pro
225					230					235					240
Ser	Gly	Glu	Glu	Gln	Ala	Arg	Leu	Gln	Ser	Glu	Asn	Pro	Asp	Ala	Arg
				245					250					255	
Leu	Val	Asp	Val	Ser	Ser	Val	Ala	Ser	His	Ser	Phe	Gly	Asp	Ala	
			260					265					270		

```
<210> 217
<211> 500
<212> DNA
<213> Homo sapiens
```

```
<400> 217
nnacgcgctcg cgatgaaaga ggcgctgaaa ggtgccatcc agattccaac agtgactttt
60
agctctgaga agtccaatac tacagccctg gctgagttcg gaaaatacat tcataaagtc
120
tttcttacag tggtcagcac cagctttatc cagcatgaag tcgtggaaga gtatagccac
180
ctggttacta tccaaggctc ggaccccagc ttgcagccct acctgctgat ggctcacttt
240
gatgtggtgc ctgcccctga agaaggctgg gaggtgcccc cattctctgg gttggagcgt
300
gatggcgctca tctatggttg gggcacactg gacgacaaga actctgtgat ggcattactg
360
caggccttgg agctcctgct gatcaggaag tacatcccc gaagatcttt cttcattttc
420
ctggggccatg atgaggagtc atcagggaca ggggctcaga ggatctcagc cctgctacag
480
tcaaggggcg tccagctagc
500
```

```
<210> 218
<211> 166
<212> PRT
```

<213> Homo sapiens

<400> 218

```

Xaa Arg Val Ala Met Lys Glu Ala Leu Lys Gly Ala Ile Gln Ile Pro
 1           5           10           15
Thr Val Thr Phe Ser Ser Glu Lys Ser Asn Thr Thr Ala Leu Ala Glu
      20           25           30
Phe Gly Lys Tyr Ile His Lys Val Phe Pro Thr Val Val Ser Thr Ser
      35           40           45
Phe Ile Gln His Glu Val Val Glu Glu Tyr Ser His Leu Phe Thr Ile
      50           55           60
Gln Gly Ser Asp Pro Ser Leu Gln Pro Tyr Leu Leu Met Ala His Phe
65           70           75           80
Asp Val Val Pro Ala Pro Glu Glu Gly Trp Glu Val Pro Pro Phe Ser
      85           90           95
Gly Leu Glu Arg Asp Gly Val Ile Tyr Gly Trp Gly Thr Leu Asp Asp
      100          105          110
Lys Asn Ser Val Met Ala Leu Leu Gln Ala Leu Glu Leu Leu Leu Ile
      115          120          125
Arg Lys Tyr Ile Pro Arg Arg Ser Phe Phe Ile Ser Leu Gly His Asp
      130          135          140
Glu Glu Ser Ser Gly Thr Gly Ala Gln Arg Ile Ser Ala Leu Leu Gln
145          150          155          160
Ser Arg Gly Val Gln Leu
      165

```

<210> 219

<211> 361

<212> DNA

<213> Homo sapiens

<400> 219

```

acgcgttgaa acgggtatat tggggatgac gccgctgtgc aatatgcgca aggccatata
60
caagggtccgc acgctcccat gtcctcgtt ttcgacagtt cttttgcgcc gcattatggc
120
gaagccgctcg agattgcgcc tgatatcaag cgcatacagg tcaacaaccc cagccccctc
180
acttttttcg gcaccaacag ttatctgac ggccgcgata cgctggcatt gatcgatccc
240
ggtcgcgttg acgaggccca tcacgcggcg ctgctgcgtg ccattgccgg ccggccggtc
300
agccatatct ttgtcagcca cacacaccgg gaccactcgc cagtcgcgac gggtttgaaa
360
g
361

```

<210> 220

<211> 102

<212> PRT

<213> Homo sapiens

<400> 220

```

Met Ala Asp Arg Pro Ala Gly Asn Gly Thr Gln Gln Arg Arg Val Met

```

```

      1           5           10           15
Gly Leu Val Lys Arg Thr Gly Ile Asp Gln Cys Gln Arg Ile Ala Ala
      20           25           30
Asp Gln Ile Thr Val Gly Ala Glu Lys Ser Glu Gly Ala Gly Val Val
      35           40           45
Asp Arg Asp Ala Leu Asp Ile Arg Arg Asn Leu Asp Gly Phe Ala Ile
      50           55           60
Met Arg Arg Lys Arg Thr Val Glu Asn Glu Gly His Gly Ser Val Arg
      65           70           75           80
Thr Leu Cys Met Ala Leu Arg Ile Leu His Ser Gly Val Ile Pro Asn
      85           90           95
Ile Pro Val Ser Thr Arg
      100

```

<210> 221  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

```

<400> 221
agatctctgt gtcgtcggct gcaaagagga tgagcccaga tgcatatcag gggctccctc
60
ccacatccca cctgctcggg cagcccacgg cagccccaca ctgctgcagc acacctcgct
120
gcagctctgg ttctctctca gaaatatccc tgccaccctg ctaagccttg gccaaactg
180
caccctgtcc caatgcggt ccaagtaccca cccccccagg gcataccctc ctacagagca
240
ttcccaaaaa aggctagagt agacaccagc ctgctccgta gggggcctcc accccattct
300
ccaaggcctc caccagggga cgctgggtga accagcatcc aggctggcc cacctccctg
360
ctcagagtcc atgttctgtg acaagggtgg caactgggat t
401

```

<210> 222  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

```

<400> 222
Met Asp Ser Glu Gln Gly Gly Gly Pro Gly Leu Asp Ala Gly Ser Pro
      1           5           10           15
Gly Val Pro Gly Trp Arg Pro Trp Arg Met Gly Trp Arg Pro Pro Thr
      20           25           30
Glu Gln Ala Gly Val Tyr Ser Ser Leu Phe Trp Glu Cys Ser Val Gly
      35           40           45
Gly Tyr Ala Leu Gly Val Trp Ser Leu Glu Pro His Trp Asp Arg Val
      50           55           60
Gln Cys Trp Pro Arg Leu Ser Arg Val Ala Gly Ile Phe Leu Arg Arg
      65           70           75           80
Asn Gln Ser Cys Ser Glu Val Cys Cys Ser Ser Val Gly Leu Pro Trp
      85           90           95
Ala Ala Arg Ala Gly Gly Met Trp Glu Gly Ala Pro Asp Met His Leu

```

100 105 110  
 Gly Ser Ser Ser Leu Gln Pro Thr Thr Gln Arg Ser  
 115 120

<210> 223  
 <211> 331  
 <212> DNA  
 <213> Homo sapiens

<400> 223  
 tcatgaaatc tgtgggcagt gaccagagg ggtatgggca ggcccaacca ggttggtgtg  
 60  
 cccttgaagc cccacagacc tgccagggca gcagggcagt tgggagccgg agaacctgag  
 120  
 aaccaagcca ggctgcatgc aggaggtgg cacgtgaacg ctgcaggtgt tgccggcagc  
 180  
 cgtgggtgctt ggcagatagt gttcgacccc cnaggacctt cttgctgggc agcccagtc  
 240  
 aaaagctggt cccgcttaag ccacccccac cgccttggcc acacctggca catgggtgaa  
 300  
 gcaagggcat ttcccggggc ttctgttcc c  
 331

<210> 224  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 224  
 Met Pro Leu Leu His Pro Cys Ala Arg Cys Gly Gln Gly Gly Gly Gly  
 1 5 10 15  
 Gly Leu Ser Gly Asn Ser Phe Trp Thr Gly Leu Pro Ser Lys Lys Val  
 20 25 30  
 Leu Gly Gly Arg Thr Leu Ser Ala Arg His His Gly Cys Arg Gln His  
 35 40 45  
 Leu Gln Arg Ser Arg Ala Ser Leu Leu His Ala Ala Trp Leu Gly Ser  
 50 55 60  
 Gln Val Leu Arg Leu Pro Thr Ala Leu Leu Pro Trp Gln Val Cys Gly  
 65 70 75 80  
 Ala Ser Arg Ala His Gln Pro Gly Trp Ala Cys Pro Tyr Pro Pro Gly  
 85 90 95  
 Ser Leu Pro Thr Asp Phe Met  
 100

<210> 225  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 225  
 tgatcacggg cgtgagccac cagcccagca tcccttgctt ttcattcgca cctccacctc  
 60  
 cagaatgacc ctcatccct cctgcacaga cggtgacagc agtaactcct acaaacacca  
 120

ccagactgat cttcaagagc agaggaactc ccaatcacga ttccaccccc gccgggctct  
 180  
 caaatcctcc agggctgcct gctatggggg agggaggcac actttgcttg gctctcaagg  
 240  
 cctcagccag ccgggtccaa accaactccc agcctggcct caccatccca ccgccaaacc  
 300  
 tttgtcacca ctggcccctc ttcctggaac atggggctn  
 339

<210> 226

<211> 91

<212> PRT

<213> Homo sapiens

<400> 226

Met	Thr	Leu	Ile	Pro	Ser	Cys	Thr	Asp	Gly	Asp	Ser	Ser	Asn	Ser	Tyr
1				5					10					15	
Lys	His	His	Gln	Thr	Asp	Leu	Gln	Glu	Gln	Arg	Asn	Ser	Gln	Ser	Arg
			20					25					30		
Phe	His	Pro	Arg	Arg	Ala	Leu	Lys	Ser	Ser	Arg	Ala	Ala	Cys	Tyr	Gly
		35					40					45			
Gly	Gly	Arg	His	Thr	Leu	Leu	Gly	Ser	Gln	Gly	Leu	Ser	Gln	Pro	Gly
	50					55					60				
Pro	Asn	Gln	Leu	Pro	Ala	Trp	Pro	His	His	Pro	Thr	Ala	Lys	Pro	Leu
65					70					75				80	
Leu	Thr	Leu	Ala	Pro	Leu	Pro	Gly	Thr	Trp	Ala					
				85					90						

<210> 227

<211> 353

<212> DNA

<213> Homo sapiens

<400> 227

gtcgaccctc tcgattgtgg cgaactccat ggctgctgcg ggctgcgta ggctctcgag  
 60  
 tagctcgacg tcgggttcgc gagggctcgc agcgtggcca tgctgcttct tggatggttc  
 120  
 gggcaactcc tcgggggatt cgagcagttc ttggcgcacc tgctctggcg tcatcccgga  
 180  
 ggccaggccg acaagtgtcg cctcctgcca cccgctgagc gacgctgcca tgttgagtac  
 240  
 ggcgtcttca ctggtcaggg cgagcgcggg atcgaccagg ttggcgtcca ggccgagaga  
 300  
 cagcatgtct gctcagtcgc ggtgatgact ggagtggcgg tctcctgcac ggg  
 353

<210> 228

<211> 102

<212> PRT

<213> Homo sapiens

<400> 228

Met Leu Ser Leu Gly Leu Asp Ala Asn Leu Val Asp Thr Ala Leu Ala



```

      1           5           10           15
Leu Thr Ser Glu Asp Ala Val Leu Asn Met Ala Ala Ser Leu Ser Gly
      20           25           30
Trp Gln Glu Ala Ala Leu Val Gly Leu Ala Ser Gly Met Thr Pro Glu
      35           40           45
Gln Val Arg Gln Glu Leu Leu Glu Ser Pro Glu Glu Leu Pro Glu Pro
      50           55           60
Ser Lys Lys Gln His Gly His Ala Ala Ser Pro Arg Glu Pro Asp Val
      65           70           75           80
Glu Leu Leu Glu Ser Leu Arg Arg Pro Ala Ala Ala Met Glu Phe Ala
      85           90           95
Thr Ile Glu Gly Val Asp
      100

```

&lt;210&gt; 229

&lt;211&gt; 743

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 229

```

nnggctaggg acacggcctc ctcctcaaca ggcagtgctc gtgcaggctc aggggcatca
60
tcaaagataa cacagggctg gtcaggggct gctggctgct cctgccccag gactggctcc
120
aggatgggca aggctgcctc cctggtagcc agggggagag gggaaaggag caccagggag
180
tgggccagca ggtgtggcat cggccaggag gagatggagg ccagcagcag ccaagaccag
240
agtaaagtgt ctgccccagg ggtgctcaca gcccaggacc gggtagtttg aaagccagcc
300
cagcttggca ctcagcggag ccaggaggca gatgttcagg actgggagtt cagaaagagg
360
gattccccag gcacttactc cagccgggat gcagaactcc aggaccagga attcggaaaag
420
agagattcac tgggtacctc cagtagtcga gatgtaagcc ttggggactg ggaatttggg
480
aagagagatt ctctgggtgc ttatgccagc caagatgcc aacagcaggg ccaagatttg
540
gggaagaggg accaccatgg taggtacagc agccaggatg ccgatgagca ggactgggag
600
tttcagaaga gagatgtgtc actcggcacc tatggcagcc gggctgcgga gccacaggaa
660
caggagtttg ggaagagcgc ttggataagg gactacagca gtggtggcag ctccaggacc
720
cttgacgccc aggacagaag ctt
743

```

&lt;210&gt; 230

&lt;211&gt; 247

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 230

```

Xaa Ala Arg Asp Thr Ala Ser Ser Ser Thr Gly Ser Ala Cys Ala Gly

```

1                      5                      10                      15  
 Ser Gly Ala Ser Ser Lys Ile Thr Gln Gly Trp Ser Gly Ala Ala Gly  
                     20                      25                      30  
 Cys Ser Cys Pro Arg Thr Gly Ser Arg Met Gly Lys Ala Ala Ser Leu  
                     35                      40                      45  
 Val Ala Arg Gly Arg Gly Glu Gly Ser Thr Arg Glu Trp Ala Ser Arg  
                     50                      55                      60  
 Cys Gly Ile Gly Gln Glu Glu Met Glu Ala Ser Ser Ser Gln Asp Gln  
 65                      70                      75                      80  
 Ser Lys Val Ser Ala Pro Gly Val Leu Thr Ala Gln Asp Arg Val Val  
                     85                      90                      95  
 Gly Lys Pro Ala Gln Leu Gly Thr Gln Arg Ser Gln Glu Ala Asp Val  
                     100                      105                      110  
 Gln Asp Trp Glu Phe Arg Lys Arg Asp Ser Gln Gly Thr Tyr Ser Ser  
                     115                      120                      125  
 Arg Asp Ala Glu Leu Gln Asp Gln Glu Phe Gly Lys Arg Asp Ser Leu  
                     130                      135                      140  
 Gly Thr Tyr Ser Ser Arg Asp Val Ser Leu Gly Asp Trp Glu Phe Gly  
 145                      150                      155                      160  
 Lys Arg Asp Ser Leu Gly Ala Tyr Ala Ser Gln Asp Ala Asn Glu Gln  
                     165                      170                      175  
 Gly Gln Asp Leu Gly Lys Arg Asp His His Gly Arg Tyr Ser Ser Gln  
                     180                      185                      190  
 Asp Ala Asp Glu Gln Asp Trp Glu Phe Gln Lys Arg Asp Val Ser Leu  
                     195                      200                      205  
 Gly Thr Tyr Gly Ser Arg Ala Ala Glu Pro Gln Glu Gln Glu Phe Gly  
                     210                      215                      220  
 Lys Ser Ala Trp Ile Arg Asp Tyr Ser Ser Gly Gly Ser Ser Arg Thr  
 225                      230                      235                      240  
 Leu Asp Ala Gln Asp Arg Ser  
                     245

&lt;210&gt; 231

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 231

acgcgttgcc caccgagagg ctggcgaggg tgtgcagcac ggcgagtggt ggcaggggtcc  
 60  
 cagggtgcag cctgcgcagc agctcctcca tcaccttgct gatgaactgt cttcccacgg  
 120  
 ccaccaggac gccactcgcc gcctgctgcc agtcccagac caggtccttc gtcttggtca  
 180  
 tctcgctgga ggccaggagg atgatggtgc tggctgtgtc cttgtccagc tcaactggcg  
 240  
 gactgctcag gaccctctcc atggccctca ggaccgctgc tcggtatggg tgtgccagct  
 300  
 tgtcatgctg ccgcagatac tctcgcagc caccggagct ctccaccctg ctggacgcc  
 360  
 tcaccgataa ggacccctg gtgcaggagc aggtctgcag tgccctgtgc tccctcgggg  
 420  
 aggtgcggcc g  
 431

<210> 232  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 232  
 Met Ala Ser Ser Arg Val Glu Thr Leu Arg Ala Cys Glu Glu Tyr Leu  
     1                    5                    10                    15  
 Arg Gln His Asp Lys Leu Ala His Pro Tyr Arg Ala Ala Val Leu Arg  
             20                    25                    30  
 Ala Met Glu Arg Val Leu Ser Ser Arg Ala Ser Glu Leu Asp Lys Asp  
             35                    40                    45  
 Thr Ala Ser Thr Ile Ile Leu Ala Ser Ser Glu Met Thr Lys Thr  
     50                    55                    60  
 Lys Asp Leu Val Trp Asp Trp Gln Gln Ala Ala Ser Gly Val Leu Val  
 65                    70                    75                    80  
 Ala Val Gly Arg Gln Phe Ile Ser Lys Val Met Glu Glu Leu Leu Arg  
                     85                    90                    95  
 Arg Leu His Pro Gly Thr Leu Pro His Cys Ala Val Leu His Thr Leu  
             100                    105                    110  
 Ala Ser Leu Ser Val Ala Asn Ala  
             115                    120

<210> 233  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

<400> 233  
 acgcgttcag ggatgccaga aatctaactg ggtaataaaa agctgggaga acattccaga  
 60  
 aaggtgggca cccttagcat tcccaaaaag caccagccct cctcatcctt cccagcttct  
 120  
 gtgctggaat gcacccccat cggaaaggct cgaaaactca ggacacatta ggatcacctg  
 180  
 gaaagcattt gtcaaaacgc atctccctgc gggtcagggt ccaagttaaa atcaaacttc  
 240  
 aggtgatgct gactcagggt gctccagaaa cacctgggga agcagcactt tggaggctgc  
 300  
 ctctcacatc caccacacag caagtgggca gggagctagg taaatctcct tcccagttga  
 360  
 gaaggggctc ggagcaggca cagagaagag atacccttag aatgcaagtt gttcagctgc  
 420  
 gaaagtccag cctgcaggct tcctgggcaa gctagtgggc tgaagtatgc cacagcaaca  
 480  
 ggcttctaga gccggctgcc cagctectac tctgcctctg ccactcactg actgtgtggt  
 540  
 cttgagcagg tcacctgtct gacttggtga gagctgacag gcatcacctg ttagaggctt  
 600  
 acgcgt  
 606

<210> 234

<211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 234

```

Met His Pro His Arg Lys Gly Ser Lys Thr Gln Asp Thr Leu Gly Ser
 1             5             10             15
Pro Gly Lys His Leu Ser Lys Arg Ile Ser Leu Arg Val Arg Val Gln
      20             25             30
Val Lys Ile Lys Leu Gln Val Met Leu Thr Gln Val Ala Pro Glu Thr
    35             40             45
Pro Gly Glu Ala Ala Leu Trp Arg Leu Pro Leu Thr Ser Thr Pro Gln
    50             55             60
Gln Val Gly Arg Glu Leu Gly Lys Ser Pro Ser Gln Leu Arg Arg Gly
 65             70             75             80
Ser Glu Gln Ala Gln Arg Arg Asp Thr Leu Arg Met Gln Val Val Gln
      85             90             95
Leu Arg Lys Ser Ser Leu Gln Ala Ser Trp Ala Ser
      100             105

```

<210> 235  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 235

```

cgaccgttga ctattctcta caaaccacaa agacaatgat tgatttaact gaatttagaa
60
atagcaaaca cttaaaacag cagcagtaca gagctgaaaa ccagattctt ttgaaagaga
120
ttgaaagtct agaggaagaa cgacttgatc tgaaaaaaaa aattcgccaa atggctcaag
180
aaagaggaaa aagaagggca acttcaggat taaccactgg ggacctgaac ctaactgaaa
240
acatttctca aggagataga ataagtgaag gaaaattgga tttattgagc ctcaaaaata
300
tgagtgaagc acaatcaaag aatgaatt
328

```

<210> 236  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 236

```

Met Ile Asp Leu Thr Glu Phe Arg Asn Ser Lys His Leu Lys Gln Gln
 1             5             10             15
Gln Tyr Arg Ala Glu Asn Gln Ile Leu Leu Lys Glu Ile Glu Ser Leu
    20             25             30
Glu Glu Glu Arg Leu Asp Leu Lys Lys Ile Arg Gln Met Ala Gln
    35             40             45
Glu Arg Gly Lys Arg Arg Ala Thr Ser Gly Leu Thr Thr Gly Asp Leu
    50             55             60
Asn Leu Thr Glu Asn Ile Ser Gln Gly Asp Arg Ile Ser Glu Arg Lys

```

65                                      70                                      75                                      80  
 Leu Asp Leu Leu Ser Leu Lys Asn Met Ser Glu Ala Gln Ser Lys Asn  
                                     85                                      90                                      95  
 Glu

<210> 237

<211> 2059

<212> DNA

<213> Homo sapiens

<400> 237

ggccataagg gcacgacgca ttcctagccg atgcaccaac acgggcatga agcctgccga  
 60  
 gagcacgaag ccggcggtcca tagctacggc ccatacgggc atgtctgcca tggctccggt  
 120  
 gatgtcagac tgcacatgaa atcgggttacg gtaccccagg atcatcgcta ccgagtacac  
 180  
 cccgaacagc acccgctggg cgccgatcag cgtgagggag tgccccacca gtggcacttt  
 240  
 tcttagatag cggaacccat ccaccacatc cccagtcacc gttctcatcg tccgggaacg  
 300  
 atccaccagt ggcggcccaa gctcccgacg tgaaaactgc agcccctagg cgaccgagac  
 360  
 tgcgaagagg gctgcgggaga tgcagaaaat gatcgtgtcg gcgtggtgca caggaatatg  
 420  
 gcgtccggca atcatgcga ctgctgcagc aacaaccgca ccgatcatga gccctagcgg  
 480  
 ccaatcggtg gcatgattga cgatgccgtc aggtagtcgc gcttgctgat ggtgtattcc  
 540  
 aaccagcga ccaaggcggg gagcaaaaac cggttcaggc tcatcgcgat gagcaacca  
 600  
 atgagcaagg ccagggtggga gggcttatcg cgcgaccac cccagaccaa gatccccagc  
 660  
 ccgaccagg tgacggcacg cattcatctg cgtattgtcc cgactacacc gtgagggcgc  
 720  
 tctctgatct gcagctcatc aagggttacg gactgcagta cctcaatgca ctctggcta  
 780  
 cccgagccca gaacctgcc aagtcccctg agaacaccga cctgcagggt attccaggca  
 840  
 gccagaccag gtccttggt gagaagacca ccacagcggc agctttcca gtagcccttt  
 900  
 cctcttttg cacagttgga acctccagtt gataaatgac tgtggactag cgcgcgtttt  
 960  
 ttgttttcag agcacacgta aggggtccagc cacagcaggc ccggcgcccc ggtggaaggc  
 1020  
 agccctgggc ggaaccagg cgtttaacgg ctactaggc agccccagat ctggggaagc  
 1080  
 agatgagcac gtggggagct ggagtgagct gagcagaagt tttgtgccg cctgccccca  
 1140  
 tcccctccag gccacgtttt agatggccct ttagattgag ggtcctgggt gtcctcagaa  
 1200  
 ctagacatca atgcctggat ccttcagccg gccctgccct cctttaggag acaggagtca  
 1260

ccagggcaca gccctccagg cccgcctcag gaaggaatga aaggaatgcc atcatctcta  
 1320  
 gttcccaggg cccagccttc cccttctccc cgggggcagg gacagtgcgg catattcaga  
 1380  
 ttcagacctc tttgggctga gccaccttgt gagtgcagtt actgcctttg tgtggccgtg  
 1440  
 acctctattt gtttgctttt aatttgccaa cctatcgctg ctggcagcac tttttgagca  
 1500  
 agccgagagc acccattttg gctggggatt cagatcgatg gccttgcca tgttgctcctt  
 1560  
 tctggcttcc ctgatggtgt catgtttcag cgcgtgcgcc ccagccttcc ccatgtgcca  
 1620  
 aaccagaagc tccactgecc gtaggctgtc cctgtagccc tgctccctcc ctggaggctg  
 1680  
 ctcttctgat tctgagagct ggctagtgg tgctgagggc ccctttctgc ttctctgccc  
 1740  
 acctgctgag ttgccactcg cagtgttgtc agttcccggtg ttctgagaag aggtcatgcc  
 1800  
 tgggaggaag ggatcgatc gctgcatcga atcctctctc cgccgtgtgg cccccaggag  
 1860  
 agtagctgcc tgttgacact gctccacacc tccccacagc ctccctgcag gtgctgtgtg  
 1920  
 gccgtgatgt gcagagagca gtgagggagg gttcatgaac caggtggatc ctctttaaaa  
 1980  
 aaaaaaaaaag tttttgttat atctctaaaa tcccatagct aggaacagaa aaaaaggaaa  
 2040  
 agacttgaaa tgttctaga  
 2059

&lt;210&gt; 238

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 238

Ala	Glu	Gln	Lys	Phe	Cys	Ala	Arg	Leu	Pro	Pro	Ser	Pro	Pro	Gly	His
1				5					10					15	
Val	Leu	Asp	Gly	Pro	Cys	Ser	Cys	Gly	Ser	Trp	Val	Ser	Ser	Glu	Leu
			20					25					30		
Asp	Ile	Asn	Ala	Trp	Ile	Leu	Gln	Pro	Ala	Leu	Pro	Ser	Phe	Arg	Arg
		35					40					45			
Gln	Glu	Ser	Pro	Gly	His	Ser	Pro	Pro	Gly	Pro	Pro	Gln	Glu	Gly	Met
		50				55					60				
Lys	Gly	Met	Pro	Ser	Ser	Leu	Val	Pro	Arg	Ala	Gln	Pro	Ser	Pro	Ser
65					70				75					80	
Pro	Pro	Gly	Gln	Gly	Gln	Cys	Gly	Ile	Phe	Arg	Phe	Arg	Pro	Leu	Trp
			85					90						95	
Ala	Glu	Pro	Pro	Cys	Glu	Cys	Ser	Tyr	Cys	Leu	Cys	Val	Ala	Val	Thr
			100					105					110		
Ser	Ile	Cys	Leu	Leu	Leu	Ile	Cys	Gln	Pro	Ile	Ala	Ala	Gly	Ser	Thr
		115					120					125			

Phe

<210> 239  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 239  
 ntctagatca ctctgtagcg catgggttaa tgctgacaca atagaaaagt gcgaggacat  
 60  
 cctcgaatta atgagatggg ggactggatg agtcaagtgc tcgtcgttgc ggaggctgtc  
 120  
 ggtcagctgc cctctctcca cttctgcttc tcggcggttac cccataccgt attggccgcg  
 180  
 tgttcacctt tgaatgcagc catgtcgtcg tctccgtatc gaaatgatgt gccatcgaag  
 240  
 atgccgacct cagcatcggc atctgcagtg atgagtgcgt atcgcgccac acgaaacgcc  
 300  
 cagcgcaacc gtgtcctcgc acgatacgaa gtgcttgggt atctcagctc tggtagctat  
 360  
 ggtcgtgtat ataaagcaaa ggaacttn  
 388

<210> 240  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 240  
 Met Val Asp Trp Met Ser Gln Val Leu Val Val Ala Ala Ala Val Gly  
 1 5 10 15  
 Gln Leu Pro Leu Leu His Phe Cys Phe Ser Ala Leu Pro His Thr Val  
 20 25 30  
 Leu Ala Ala Cys Ser Pro Leu Asn Ala Ala Met Ser Ser Ser Pro Tyr  
 35 40 45  
 Arg Asn Asp Val Pro Ser Lys Met Pro Thr Ser Ala Ser Ala Ser Ala  
 50 55 60  
 Val Met Ser Ala Tyr Arg Ala Thr Arg Asn Ala Gln Arg Asn Arg Val  
 65 70 75 80  
 Leu Ala Arg Tyr Glu Val Leu Gly Tyr Leu Ser Ser Gly Thr Tyr Gly  
 85 90 95  
 Arg Val Tyr Lys Ala Lys Glu Leu  
 100

<210> 241  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 241  
 ncggggggcc gagttgaaag ctgccggcac actggctgtg ctgcttgctt cacttctcgg  
 60  
 gatgctgctt ccagggcggg cctgggggaa acatcggcct tcccaggcac ccttagcccc  
 120  
 tcccatctgg gggcccttag cacagtcctt gggacccac atgctgcctt tcaggctgat  
 180

gtgggcaaac tcggcagccc agcctactcc cgggcatgg gccaccatct cagcttcctt  
 240  
 ggggctaagc cgtgtgctct gaatcaaaag cagtagtggc atcggcgcca ctggcgccat  
 300  
 gggaaacggg ttgacttgca caaccagcac  
 330

<210> 242  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 242  
 Met Ala Pro Val Pro Pro Met Pro Leu Leu Leu Ile Gln Ser Thr  
 1 5 10 15  
 Arg Leu Ser Pro Arg Glu Ala Glu Met Val Ala His Gly Pro Gly Val  
 20 25 30  
 Gly Trp Ala Ala Glu Phe Ala His Ile Ser Leu Lys Gly Ser Met Trp  
 35 40 45  
 Gly Pro Arg Asp Cys Ala Lys Gly Pro Gln Met Gly Arg Ala Lys Gly  
 50 55 60  
 Ala Trp Glu Gly Arg Cys Phe Pro Gln Ala Arg Pro Gly Ser Ser Ile  
 65 70 75 80  
 Pro Arg Ser Glu Ala Ser Ser Thr Ala Ser Val Pro Ala Ala Phe Asn  
 85 90 95  
 Ser Ala Pro Arg  
 100

<210> 243  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 243  
 nnaccttctc tccgcgttat taccaaagat gctatgcacg taactgcgga ggaaattctt  
 60  
 cacacaggcc accccgcccc cactgcgctc gtcgctaatac ttccctataa cgttgcggta  
 120  
 cccgtactgc tacacatgct agatattctc cctccttgc ggactacagt ggtgatgggtg  
 180  
 caggcagaag tagccgatcg attggctgcc acaccaggca gccgcattta cgggtgtcccc  
 240  
 agcgtcaaag tcaactttta cgggactgtc tcgctgctgg gagcaattgg acgcaatgtc  
 300  
 ttctggccgg ctcccaatgt tgattctggn  
 330

<210> 244  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 244  
 Xaa Pro Ser Leu Arg Val Ile Thr Lys Asp Ala Met His Val Thr Ala



```

      1           5           10           15
Glu Glu Ile Leu His Thr Gly His Pro Ala Pro Thr Ala Leu Val Ala
      20           25           30
Asn Leu Pro Tyr Asn Val Ala Val Pro Val Leu Leu His Met Leu Asp
      35           40           45
Ile Leu Pro Ser Leu Arg Thr Thr Val Val Met Val Gln Ala Glu Val
      50           55           60
Ala Asp Arg Leu Ala Ala Thr Pro Gly Ser Arg Ile Tyr Gly Val Pro
      65           70           75           80
Ser Val Lys Val Asn Phe Tyr Gly Thr Val Ser Arg Ala Gly Ala Ile
      85           90           95
Gly Arg Asn Val Phe Trp Pro Ala Pro Asn Val Asp Ser Gly
      100           105           110

```

&lt;210&gt; 245

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 245

tctagatcct gaatcaccca cctcctagtt tcggattcac ctccgccggc gtcacctgaa  
60

aacaatgtcg agcccgaatg gatgatggta gccacacca tctcggaag gtggaatgca  
120

gcgtgttgca gaaacagaag ttgaccgtcg gaggtaggcg gcattcgctt cggatcgaag  
180

cgccccgagg catccatctc gagttgacga cgaaaatctt tccagtcac gccgtagggg  
240

ganttgcaa ccacagcatc gaatttgcc agaaggaagt ggtcgttggt gagggatttg  
300

ccccattcaa tacgcgcac ttcccgaag cgcgcctcta ttgcggccaa cgcgt  
355

&lt;210&gt; 246

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 246

```

Met Arg Val Leu Asn Gly Ala Ile Pro Ser Pro Thr Thr Thr Ser Phe
      1           5           10           15

```

```

Trp Thr Asn Ser Met Leu Trp Leu Pro Xaa Pro Pro Thr Ala Trp Thr
      20           25           30

```

```

Gly Lys Ile Phe Val Val Asn Ser Arg Trp Met Pro Arg Asp Ala Ser
      35           40           45

```

```

Ile Arg Ser Glu Cys Arg Leu Pro Pro Thr Val Asn Phe Cys Phe Cys
      50           55           60

```

```

Asn Thr Leu His Ser Thr Phe Pro Arg Trp Val Trp Leu Pro Ser Ser
      65           70           75           80

```

```

Ile Arg Ala Arg His Cys Phe Gln Val Thr Pro Ala Glu Val Asn Pro
      85           90           95

```

```

Lys Leu Gly Gly Gly
      100

```

<210> 247  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 247  
 atggccgcga atgggcaccg tgtcatgggc gtctctcccc gctacgacca gtacaaggac  
 60  
 gcctgggaca ccagcgtcgt gtccgagatc aagatgggag acaggtacga gacggtcagg  
 120  
 ttcttcact gctacaagcg cggagtggac cgcgtgttcg ttgaccaccc actgttcctg  
 180  
 gagagggttt ggggaaagac cgaggagaag atctacgggc ctgacgctgg aacggactac  
 240  
 agggacaacc agctgcggtt cagcctgcta tgccaggcag cacttgaagc tccaaggatc  
 300  
 ctgagcctca acaacaaccc atacttctcc gga  
 333

<210> 248  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 248  
 Met Ala Ala Asn Gly His Arg Val Met Val Val Ser Pro Arg Tyr Asp  
 1 5 10 15  
 Gln Tyr Lys Asp Ala Trp Asp Thr Ser Val Val Ser Glu Ile Lys Met  
 20 25 30  
 Gly Asp Arg Tyr Glu Thr Val Arg Phe Phe His Cys Tyr Lys Arg Gly  
 35 40 45  
 Val Asp Arg Val Phe Val Asp His Pro Leu Phe Leu Glu Arg Val Trp  
 50 55 60  
 Gly Lys Thr Glu Glu Lys Ile Tyr Gly Pro Asp Ala Gly Thr Asp Tyr  
 65 70 75 80  
 Arg Asp Asn Gln Leu Arg Phe Ser Leu Leu Cys Gln Ala Ala Leu Glu  
 85 90 95  
 Ala Pro Arg Ile Leu Ser Leu Asn Asn Asn Pro Tyr Phe Ser Gly  
 100 105 110

<210> 249  
 <211> 5503  
 <212> DNA  
 <213> Homo sapiens

<400> 249  
 atgacccagg ggattttggc cttgggtcacg tccactggct gtgcatctgc caatgccctg  
 60  
 cagtccctca cggatgccat gcacatccca cacctctttg tccagcgcaa cccgggaggg  
 120  
 tcgccacgca ccgcatgcc a cctgaacccc agccccgatg gtgaggccta cacactggct  
 180  
 tcgagaccac ccgtccgcct caatgatgtc atgctcaggc tggtgacgga gctgcgctgg  
 240

cagaagttcg tcatgttcta cgacagcgag tatgatatcc gtgggcttca aagctttctg  
300  
gaccaggcct cgcggtctggg ccttgacgtc tctttacaaa aggtggacaa gaacattagc  
360  
cacgtattca ccagcctgtt caccacgatg aagacagagg agctgaatcg ctaccgggac  
420  
acgcttcgcc gcgccatcct gctgctcagc ccacagggag cccactcctt catcaacgag  
480  
gccgtggaga ccaacctggc ttccaaggac agccactggg tctttgtgaa tgaggaaatc  
540  
agtgacctcg agatcctgga tctggtccat agtgcccttg gaaggatgac cgtggtccgg  
600  
caaactcttc cgtctgcaaa ggacaatcag aaatgcacga ggaacaacca ccgcatctcc  
660  
tccctgctct gcgaccccca ggaaggctac ctccagatgc tgcagatctc caacctctat  
720  
ctgtatgaca gtgttctgat gctggccaac gcctttcaca ggaagctgga ggaccggaag  
780  
tggcatagca tggcgagcct caactgcata cggaaatcca ctaagccatg gaatggtggg  
840  
aggtccatgc tggataccat caaaaagggc cacatcactg gcctcactgg ggtgatggag  
900  
tttcgggagg acagttcgaa tccctatgtc cagtttgaaa tccttggcac tacctatagt  
960  
gagacttttg gcaaagacat gcgcaagttg gcgacatggg actcagagaa gggcttgaat  
1020  
ggcagcttgc aagagaggcc catgggcagc cgctccaag gattgactct taaagtggg  
1080  
actgtcttgg aagagccttt cgtgatggg gctgagaaca tcctaggaca gccaagcgc  
1140  
tacaagggt tctccataga tgtcctggat gcaactggcca aggtctctggg ctttaaatat  
1200  
gagatttacc aagccctga tggcaggtag ggtcaccagc tcataaacac ctcttggaa  
1260  
gggatgatcg gggagctcat cagcaagaga gcagacttgg ccattctctg catcaccatc  
1320  
acccagaga gggagagcgt tgtggacttc agcaagcgg acatggacta ttcagtggg  
1380  
attctaatta agaagccga ggagaaaatc agcatcttct ccctcttgc tccatttgat  
1440  
ttcgctgtgt gggcctgcat tgcagcagcc atccctgtgg ttggtgtgct gatatttgtg  
1500  
ttgaacagga tacaggctgt gagggctcag agtgctgcc agcccaggcc gtcagcttct  
1560  
gccactctgc acagcgccat ctggattgtc tatggagcct tcgtacagca aggtggcgaa  
1620  
tcttccgtga actccatggc catgcgcatc gtgatgggca gctggtggct cttcacgctc  
1680  
attgtgtgct cctcctacac agccaacctt gctgccttcc tcacagtgtc caggatggag  
1740  
aaccataa ggaacttcca ggacctgtcc aaacaagtgg aaatgtctta tggcactgtc  
1800  
cgggattctg ctgtatatga gtacttccga gccaaaggga ccaacccctt ggagcaggac  
1860

agcacgtttg ctgaactctg gcggaccatc agcaagaacg gaggggctga caactgcgtg  
1920  
tccagtcctt cagaaggcat caggaaggca aagaagggga actacgcctt cctgtgggat  
1980  
gtggccgtgg tggaatacgc agccctgacg gatgacgact gctcggtgac tgtcatcggc  
2040  
aacagcatca gcagcaaggg ttacgggatt gccctgcagc atggcagccc ctacagggac  
2100  
ctcttctccc agaggatcct ggagctgcag gacacagggg acctggatgt gctgaagcag  
2160  
aagtgggtggc cgcacatggg ccgctgtgac ctcaccagcc atgccagcgc ccaggccgac  
2220  
ggcaaattccc tcaagctgca cagcttcgcc ggggtcttct gcatcctggc cattggcctg  
2280  
ctcctggcct gcctgggtggc tgccctggag ttgtgggtgga acagcaaccg gtgccaccag  
2340  
gagaccccca aggaggacaa agaagtgaac ttggagcagg tccaccggcg catgaacagc  
2400  
ctcatggatg aagacattgc tcacaagcag atttccccag cgtcgattga gctctcggcc  
2460  
ctggagatgg ggggcctggc tcccacccag acctggagc cgacacggga gtaccagaac  
2520  
accagctct cggtcagcac ctttctgccg gagcagagca gccatggcac cagccggaca  
2580  
ctctcatcag ggcccagcag caacctgccg ctgccgctga gcagctcggc gaccatgccc  
2640  
tccatgcagt gcaaacacag gtcacccaac ggggggctgt tccggcagag cccgggtgaag  
2700  
accccatcc ccatgtcctt ccagcccgtg cctggaggcg tccttccaga ggctctggac  
2760  
acctcccacg ggacctccat ctgactgcgc cgcctgcctt cctgccacc ctcccacca  
2820  
cccgaccagc agagcttttt aatacaagaa aacaacaaca caaaccacac aactcgcac  
2880  
acacacacat acacagagac tctttcattt ttctgtaca tatgtgtaa taatgacaga  
2940  
atggagtggg gtaaaagtgt attttgaata ttcccaattt tcgaagtcag taaaaaaca  
3000  
caaaaactgt atgaatgact ttgtaaattt tgttctatat gaataaaaag gcaaattact  
3060  
tgtgatcatt ctgaagtgcc aaaggagccc cccattcct gggcctttct gagggcagga  
3120  
ggggcgacca gataaggagc ccctctctgc tgggggagaa gggaagacga ggaacccac  
3180  
atgccactcg ctgccttgtc ccacagcttg ctgccccatt tctttgctcc tggcacctcg  
3240  
tcccttttag tccctcagct tgataaagag tgagtttga gcccgattg ggctggccca  
3300  
ctgggttget gtgctgtagg gtgatcggct gttctgggta gcctggggct gagggagtgc  
3360  
cctggactca gggctatcct gtccctgtctt ggatcttgcg ggacgagtta gtcaccgctg  
3420  
tgtgtgttgc agtgtgcctc tgcccatgg gcccgagaga agctgacaat tacccatagt  
3480

gaggtaattg agggctttga tactgagctg ttctcatatc atactgttgg ccttgttttt  
3540  
cattttcttt tcaaaattag aagaatcaaa aagtgataga atattggggg aaggagggca  
3600  
gactccatcg ttctctcagg gagactgggc ggaggtgggg ttggtctgga agaaggtcca  
3660  
tgggggcagg gagttgagag gtgggggttag ttgcatggac caggtgaggt ggtggaacaa  
3720  
aaggccaggt agaggaagaa tattcccttg ggtttggacc catggtccca ggtgagagaa  
3780  
ggaagtgagg ccatagatgc agggagtaga agctttgttg tgcaggcaa acggactctg  
3840  
ttagtaagag ttgggggagg tgcccagggt ggtggaccag tactccagggt gatggggcat  
3900  
gctgagaaat agagaaaaga gaccatgttt atttgggttag gaggaagcct tgccttgagc  
3960  
cttaggtgag aagcataagt gtaactccca tccaccaggg aagttgcttg tagcccaaaa  
4020  
agtaaaggcc tatctctggg tcataaatcc tgcaggcagt ccaacaaaca gggctggctc  
4080  
cagcacaac tctcccttcc acctttacga ccctctccag accagacctg gagtctctt  
4140  
caagcagcaa tccaaccag agcaggggccc ctccccactc aggcactctga taacctctga  
4200  
gatttccagg cctatccctg tgcaggtaga gctgcaggga agcccagttt tctaagccta  
4260  
ggaccaccta acagcgcccc ctcttctagt tgccttttct gaggcaacta aactacagaa  
4320  
tcagggaag aaccattagg agtgggaactg ggggaatctg agttgtgtca cttcagttcc  
4380  
tctcctaaag acaaagggtta gtctgatctc cagaccgctc agaatggaat acacagccca  
4440  
catctgtcac tgaaggaggt ggagctccca cagccagcag taatcaggga gctgagagcc  
4500  
tggttctgtg atcatggaga aatacaaagt cctattgatt gcttcttcta tagccttgta  
4560  
gagtttctag agagatgtat ttatgagggt gataactagc ccaggattga tttcttctc  
4620  
aaagtccta gtgacatgat tgagcagtaa agaacggcca aatcacacag tcagctaaaa  
4680  
gcactgtggg gaagagagtg ttataatta tgttatttat tgctggatgc tgagaatggt  
4740  
ctgatattcg tgctacctag gcaatccatt gacatttctc caatcagagc atgtggacct  
4800  
tggagccagg catgctcaga gaagcctagg tgggctacca tgaccccgag gaagagcagg  
4860  
ctttgttttc catcagcacg ttgggggccc tgccctgaat ggtcaatttt tcacatatat  
4920  
atctctctat ttttttaatc aaactctggt ctactgcct tatctcacac caactctggt  
4980  
tcctcattgc cccctgagat ggctgtctt ctgggggtata gcttggatgt cttcttggat  
5040  
ggttctgctt agaagagtg tcaaggagga aagagaggga gatggaggat gtgtttgtgc  
5100

gcctgtgtgt gtgtgtttgt gtgtgtgtgt gtgtgtgaga gagagagaga gagagagaga  
 5160  
 gaccagcatc ttcaagagaa gtattctgct tatacaaaat ccttaacacc tcatgggtgt  
 5220  
 attcttcacc atgtttatat atatatatat atattttttt ttttttttag aattttctac  
 5280  
 ccttggtcatg aggggaaatg attgatattc aagcaagttc tctaggaaaa aaaaaaaact  
 5340  
 tcccaactca gattttctgtg tcagctcaga atgtatcttt ttttcatgct ttgctctttg  
 5400  
 gatttataac tctgtttaga ctattccata catttttaggt atattttgtg ccttcagaca  
 5460  
 ctgcaaataa taatcagcat ttggattaaa gttgtttaat aat  
 5503

<210> 250

<211> 927

<212> PRT

<213> Homo sapiens

<400> 250

Met	Thr	Gln	Gly	Ile	Leu	Ala	Leu	Val	Thr	Ser	Thr	Gly	Cys	Ala	Ser
1			5						10					15	
Ala	Asn	Ala	Leu	Gln	Ser	Leu	Thr	Asp	Ala	Met	His	Ile	Pro	His	Leu
			20					25					30		
Phe	Val	Gln	Arg	Asn	Pro	Gly	Gly	Ser	Pro	Arg	Thr	Ala	Cys	His	Leu
		35					40					45			
Asn	Pro	Ser	Pro	Asp	Gly	Glu	Ala	Tyr	Thr	Leu	Ala	Ser	Arg	Pro	Pro
	50				55					60					
Val	Arg	Leu	Asn	Asp	Val	Met	Leu	Arg	Leu	Val	Thr	Glu	Leu	Arg	Trp
65				70					75					80	
Gln	Lys	Phe	Val	Met	Phe	Tyr	Asp	Ser	Glu	Tyr	Asp	Ile	Arg	Gly	Leu
			85					90						95	
Gln	Ser	Phe	Leu	Asp	Gln	Ala	Ser	Arg	Leu	Gly	Leu	Asp	Val	Ser	Leu
			100					105					110		
Gln	Lys	Val	Asp	Lys	Asn	Ile	Ser	His	Val	Phe	Thr	Ser	Leu	Phe	Thr
		115					120					125			
Thr	Met	Lys	Thr	Glu	Glu	Leu	Asn	Arg	Tyr	Arg	Asp	Thr	Leu	Arg	Arg
		130				135					140				
Ala	Ile	Leu	Leu	Leu	Ser	Pro	Gln	Gly	Ala	His	Ser	Phe	Ile	Asn	Glu
145				150					155					160	
Ala	Val	Glu	Thr	Asn	Leu	Ala	Ser	Lys	Asp	Ser	His	Trp	Val	Phe	Val
			165					170					175		
Asn	Glu	Glu	Ile	Ser	Asp	Pro	Glu	Ile	Leu	Asp	Leu	Val	His	Ser	Ala
		180					185					190			
Leu	Gly	Arg	Met	Thr	Val	Val	Arg	Gln	Ile	Phe	Pro	Ser	Ala	Lys	Asp
		195					200					205			
Asn	Gln	Lys	Cys	Thr	Arg	Asn	Asn	His	Arg	Ile	Ser	Ser	Leu	Leu	Cys
	210					215					220				
Asp	Pro	Gln	Glu	Gly	Tyr	Leu	Gln	Met	Leu	Gln	Ile	Ser	Asn	Leu	Tyr
225				230					235					240	
Leu	Tyr	Asp	Ser	Val	Leu	Met	Leu	Ala	Asn	Ala	Phe	His	Arg	Lys	Leu
			245					250						255	
Glu	Asp	Arg	Lys	Trp	His	Ser	Met	Ala	Ser	Leu	Asn	Cys	Ile	Arg	Lys

260 265 270  
 Ser Thr Lys Pro Trp Asn Gly Gly Arg Ser Met Leu Asp Thr Ile Lys  
 275 280 285  
 Lys Gly His Ile Thr Gly Leu Thr Gly Val Met Glu Phe Arg Glu Asp  
 290 295 300  
 Ser Ser Asn Pro Tyr Val Gln Phe Glu Ile Leu Gly Thr Thr Tyr Ser  
 305 310 315 320  
 Glu Thr Phe Gly Lys Asp Met Arg Lys Leu Ala Thr Trp Asp Ser Glu  
 325 330 335  
 Lys Gly Leu Asn Gly Ser Leu Gln Glu Arg Pro Met Gly Ser Arg Leu  
 340 345 350  
 Gln Gly Leu Thr Leu Lys Val Val Thr Val Leu Glu Glu Pro Phe Val  
 355 360 365  
 Met Val Ala Glu Asn Ile Leu Gly Gln Pro Lys Arg Tyr Lys Gly Phe  
 370 375 380  
 Ser Ile Asp Val Leu Asp Ala Leu Ala Lys Ala Leu Gly Phe Lys Tyr  
 385 390 395 400  
 Glu Ile Tyr Gln Ala Pro Asp Gly Arg Tyr Gly His Gln Leu His Asn  
 405 410 415  
 Thr Ser Trp Asn Gly Met Ile Gly Glu Leu Ile Ser Lys Arg Ala Asp  
 420 425 430  
 Leu Ala Ile Ser Ala Ile Thr Ile Thr Pro Glu Arg Glu Ser Val Val  
 435 440 445  
 Asp Phe Ser Lys Arg Tyr Met Asp Tyr Ser Val Gly Ile Leu Ile Lys  
 450 455 460  
 Lys Pro Glu Glu Lys Ile Ser Ile Phe Ser Leu Phe Ala Pro Phe Asp  
 465 470 475 480  
 Phe Ala Val Trp Ala Cys Ile Ala Ala Ala Ile Pro Val Val Gly Val  
 485 490 495  
 Leu Ile Phe Val Leu Asn Arg Ile Gln Ala Val Arg Ala Gln Ser Ala  
 500 505 510  
 Ala Gln Pro Arg Pro Ser Ala Ser Ala Thr Leu His Ser Ala Ile Trp  
 515 520 525  
 Ile Val Tyr Gly Ala Phe Val Gln Gln Gly Gly Glu Ser Ser Val Asn  
 530 535 540  
 Ser Met Ala Met Arg Ile Val Met Gly Ser Trp Trp Leu Phe Thr Leu  
 545 550 555 560  
 Ile Val Cys Ser Ser Tyr Thr Ala Asn Leu Ala Ala Phe Leu Thr Val  
 565 570 575  
 Ser Arg Met Asp Asn Pro Ile Arg Thr Phe Gln Asp Leu Ser Lys Gln  
 580 585 590  
 Val Glu Met Ser Tyr Gly Thr Val Arg Asp Ser Ala Val Tyr Glu Tyr  
 595 600 605  
 Phe Arg Ala Lys Gly Thr Asn Pro Leu Glu Gln Asp Ser Thr Phe Ala  
 610 615 620  
 Glu Leu Trp Arg Thr Ile Ser Lys Asn Gly Gly Ala Asp Asn Cys Val  
 625 630 635 640  
 Ser Ser Pro Ser Glu Gly Ile Arg Lys Ala Lys Lys Gly Asn Tyr Ala  
 645 650 655  
 Phe Leu Trp Asp Val Ala Val Val Glu Tyr Ala Ala Leu Thr Asp Asp  
 660 665 670  
 Asp Cys Ser Val Thr Val Ile Gly Asn Ser Ile Ser Ser Lys Gly Tyr  
 675 680 685  
 Gly Ile Ala Leu Gln His Gly Ser Pro Tyr Arg Asp Leu Phe Ser Gln

```

        690              695              700
Arg Ile Leu Glu Leu Gln Asp Thr Gly Asp Leu Asp Val Leu Lys Gln
705              710              715              720
Lys Trp Trp Pro His Met Gly Arg Cys Asp Leu Thr Ser His Ala Ser
        725              730              735
Ala Gln Ala Asp Gly Lys Ser Leu Lys Leu His Ser Phe Ala Gly Val
        740              745              750
Phe Cys Ile Leu Ala Ile Gly Leu Leu Leu Ala Cys Leu Val Ala Ala
        755              760              765
Leu Glu Leu Trp Trp Asn Ser Asn Arg Cys His Gln Glu Thr Pro Lys
        770              775              780
Glu Asp Lys Glu Val Asn Leu Glu Gln Val His Arg Arg Met Asn Ser
785              790              795              800
Leu Met Asp Glu Asp Ile Ala His Lys Gln Ile Ser Pro Ala Ser Ile
        805              810              815
Glu Leu Ser Ala Leu Glu Met Gly Gly Leu Ala Pro Thr Gln Thr Leu
        820              825              830
Glu Pro Thr Arg Glu Tyr Gln Asn Thr Gln Leu Ser Val Ser Thr Phe
        835              840              845
Leu Pro Glu Gln Ser Ser His Gly Thr Ser Arg Thr Leu Ser Ser Gly
        850              855              860
Pro Ser Ser Asn Leu Pro Leu Pro Leu Ser Ser Ser Ala Thr Met Pro
865              870              875              880
Ser Met Gln Cys Lys His Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln
        885              890              895
Ser Pro Val Lys Thr Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly
        900              905              910
Gly Val Leu Pro Glu Ala Leu Asp Thr Ser His Gly Thr Ser Ile
        915              920              925

```

&lt;210&gt; 251

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 251

```

nngatcagcc gcgggggtccg cgccctcgat tcggcggtgg agaccgagag tctgcgtgag
60
gacgtcaacg cgctcgaacg gctgcggttg gccgtgcgcg ccagcgtggt catcctcatc
120
gagtaccacc attcggtgac cctgctgctg cgggtgcgcg ggaactcacc tctggaacga
180
gaggccctcg agggccgcg ccgtatcgat gcgaagggttc ccgctctcgt cgagagcgcc
240
atcgccgagg gtggtctgcg ctcggtttc actcccgggc tcatcacgcg t
291

```

&lt;210&gt; 252

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 252

```

Xaa Ile Ser Arg Gly Val Arg Ala Leu Asp Ser Ala Val Glu Thr Glu

```



```

      1             5             10             15
Ser Leu Arg Glu Asp Val Asn Ala Leu Glu Arg Leu Arg Leu Ala Val
      20             25             30
Arg Ala Ser Val Val Ile Leu Ile Glu Tyr His His Ser Val Thr Leu
      35             40             45
Leu Leu Arg Val Arg Gly Asn Ser Pro Leu Glu Arg Glu Ala Leu Glu
      50             55             60
Ala Arg Arg Arg Ile Asp Ala Lys Val Pro Ala Leu Val Glu Ser Ala
65             70             75             80
Ile Ala Glu Gly Gly Leu Arg Ser Asp Phe Thr Pro Gly Leu Ile Thr
      85             90             95
Arg

```

<210> 253  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

```

<400> 253
gtgcacggat gggagcgttc gcgcgcgtgc tggcgccttc acagcccggc gagcggcgtg
60
cgctcacggc cctgtaccga ccgatctcgc aaccttcgc agaccgatcc accaaccgcg
120
cccacatgtc ggcagtgatg gcgggcacct tgcgggagaa ggccgggaag gtcgagcgcg
180
ccaatgaccg tcgcacggtc ggcacgctcc acgagcggga cgagaagctc gcggcaggac
240
gctcactcgt cgcggtgtcc tccgcggtct ccatcacctg ccctgcgaca tggaacgccc
300
acgacttcgg acggcgactc gacgcgt
327

```

<210> 254  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

```

<400> 254
Met Gly Ala Leu Ala Arg Val Leu Val Pro Ser Gln Pro Gly Glu Arg
      1             5             10             15
Arg Ala Leu Thr Val Leu Tyr Arg Pro Ile Ser Gln Pro Ser Ala Asp
      20             25             30
Arg Ser Thr Asn Arg Ala His Met Ser Ala Val Met Ala Gly Thr Leu
      35             40             45
Arg Glu Lys Ala Gly Lys Val Glu Arg Ala Asn Asp Arg Arg Thr Val
      50             55             60
Gly Thr Leu His Glu Arg Asp Glu Lys Leu Ala Ala Gly Arg Ser Leu
65             70             75             80
Val Ala Val Ser Ser Ala Val Ser Ile Thr Val Pro Ala Thr Trp Asn
      85             90             95
Ala His Asp Phe Gly Arg Arg Leu Asp Ala
      100             105

```

<210> 255  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 255  
 ctagaaatgg ctggctacga atacatggaa gctgaaaata gccacaagc ccacgaaatt  
 60  
 atcgtggacc atagacctga cttaatctta tgtgattgga tgatgccagg agggagtggc  
 120  
 atcgagctaa ctctgcgtt aaagaaagac agcacgacag cagaaatccc tgttatttta  
 180  
 ctaacggcca aaagtgaaga agacaataaa attcaaggct tagaagtcgg tgcagatgac  
 240  
 tacatcacta aacctttctc tcctcgtgaa ctagtagcac gcctcaaggc ggtattacgc  
 300  
 cgagcgactc cacaaggat tgatgatcct attgaaattg atggtttaac gcttgatccc  
 360  
 attagccaac gc  
 372

<210> 256  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 256  
 Leu Glu Met Ala Gly Tyr Glu Tyr Met Glu Ala Glu Asn Ser Gln Gln  
 1 5 10 15  
 Ala His Glu Ile Ile Val Asp His Arg Pro Asp Leu Ile Leu Cys Asp  
 20 25 30  
 Trp Met Met Pro Gly Gly Ser Gly Ile Glu Leu Thr Arg Arg Leu Lys  
 35 40 45  
 Lys Asp Ser Thr Thr Ala Glu Ile Pro Val Ile Leu Leu Thr Ala Lys  
 50 55 60  
 Ser Glu Glu Asp Asn Lys Ile Gln Gly Leu Glu Val Gly Ala Asp Asp  
 65 70 75 80  
 Tyr Ile Thr Lys Pro Phe Ser Pro Arg Glu Leu Val Ala Arg Leu Lys  
 85 90 95  
 Ala Val Leu Arg Arg Ala Thr Pro Gln Gly Ile Asp Asp Pro Ile Glu  
 100 105 110  
 Ile Asp Gly Leu Thr Leu Asp Pro Ile Ser Gln Arg  
 115 120

<210> 257  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

<400> 257  
 nnacgcgtag cggtcgaggt tgcggacacc atgccgaac ccggcctgct cgccatcgag  
 60  
 gcacccatgg gacacggcaa gaccgaggcc gccctcatgt gcgcacaggt gctcgccgaa  
 120

cgggttcgggc tcggcgccat cttcttcgggt ctaccgacga tggccacgtc caatcccatg  
 180  
 ttcgggtcgag ttcgggaatg gctggacgct gtgccagcca aggaccgctc aagcatttcc  
 240  
 ctgggtcact cgaaagctgg actcaacgag gagtaccagc agctcatgcc gtggaacgcc  
 300  
 accatggccg tctacgacga aggtgccggc acgcagcgtg aagcttcggc gatcgtccat  
 360  
 gagtgggttct tgggcccga ggcgcgcgac ctggccgacc acgtcgtcgg gaccatcgac  
 420  
 caggcactgt tcaccggtct caaagccaag catgtggtgt tacgccacct cggctctggcg  
 480  
 agcaaggctcg tcattcattga tgagggtccac gccgccgacg tctatatgcg cgaatacctc  
 540  
 aaggctgctc tcgaatggct cggcgccctac cgcacgccag tcctcctcat gtccgcgacg  
 600  
 ctgccaccgg cccaacgtca tgaactcgcg ctacggtac  
 639

<210> 258

<211> 213

<212> PRT

<213> Homo sapiens

<400> 258

Xaa	Arg	Val	Ala	Val	Glu	Val	Ala	Asp	Thr	Met	Pro	Glu	Pro	Gly	Leu
1				5					10					15	
Leu	Ala	Ile	Glu	Ala	Pro	Met	Gly	His	Gly	Lys	Thr	Glu	Ala	Ala	Leu
			20					25					30		
Met	Cys	Ala	Gln	Val	Leu	Ala	Glu	Arg	Phe	Gly	Leu	Gly	Gly	Ile	Phe
		35					40					45			
Phe	Gly	Leu	Pro	Thr	Met	Ala	Thr	Ser	Asn	Pro	Met	Phe	Gly	Arg	Val
	50					55					60				
Arg	Glu	Trp	Leu	Asp	Ala	Val	Pro	Ala	Lys	Asp	Pro	Ser	Ser	Ile	Ser
65				70						75				80	
Leu	Ala	His	Ser	Lys	Ala	Gly	Leu	Asn	Glu	Glu	Tyr	Gln	Gln	Leu	Met
				85					90					95	
Pro	Trp	Asn	Ala	Thr	Met	Ala	Val	Tyr	Asp	Glu	Gly	Ala	Gly	Thr	Gln
		100						105					110		
Arg	Glu	Ala	Ser	Ala	Ile	Val	His	Glu	Trp	Phe	Leu	Gly	Arg	Lys	Arg
		115					120					125			
Ala	Ile	Leu	Ala	Asp	His	Val	Val	Gly	Thr	Ile	Asp	Gln	Ala	Leu	Phe
	130					135					140				
Thr	Gly	Leu	Lys	Ala	Lys	His	Val	Val	Leu	Arg	His	Leu	Gly	Leu	Ala
145				150						155				160	
Ser	Lys	Val	Val	Ile	Asp	Glu	Val	His	Ala	Ala	Asp	Val	Tyr	Met	
			165					170					175		
Arg	Glu	Tyr	Leu	Lys	Val	Val	Leu	Glu	Trp	Leu	Gly	Ala	Tyr	Arg	Thr
		180						185				190			
Pro	Val	Ile	Leu	Met	Ser	Ala	Thr	Leu	Pro	Pro	Ala	Gln	Arg	His	Glu
		195					200					205			
Leu	Ala	Leu	Ala	Tyr											
		210													

<210> 259  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 259  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatgggtgtg tgcacgtgtg cnactgtgta tgcattggtaa tgtgcacgtg tgcantgtg  
 120  
 tgtnggtgtg tatgcatgng tgtgtgcacg tgtgcactgn agtgtggggg gtatgcatgg  
 180  
 tgtgtgcaca tgagcactgt gtggtgtgta tgcattggtgn ggtgcacgtg tgcactgtgt  
 240  
 atgcaatggt gt  
 252

<210> 260  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 260  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Xaa Val Cys Xaa Cys Val Cys Met Xaa Val  
 35 40 45  
 Cys Thr Cys Ala Leu Xaa Cys Gly Val Tyr Ala Trp Cys Val His Met  
 50 55 60  
 Ser Thr Val Trp Cys Val Cys Met Val Xaa Cys Thr Cys Ala Leu Cys  
 65 70 75 80  
 Met Gln Trp Cys

<210> 261  
 <211> 1202  
 <212> DNA  
 <213> Homo sapiens

<400> 261  
 gctagcccgg tcgcgttcgt cgtcgatttg ctggcggcag tcccctcgat cgtcttcggt  
 60  
 ctgtggggcg gcatcgctctt cggatcgctg ggaatcatca acggttacgc gggggcctta  
 120  
 ttcaaagcgc tcggctggat tccgatcttt tccgaagatc cgtcgtggtc ctccggtact  
 180  
 ggacaggtct accttgccag tctcgtcctg gccatcatga tcctgccaat tatcactgct  
 240  
 gttagcccg cgtcatgcc ccgaacgcc catgatcaag tcgaggccgc gctcgccttc  
 300  
 ggatcgacgc gctgggaggt catcaagctt gcagtgttcc cccactcgcg gtccggcatc  
 360

atttccggat ccatgttggg tctaggacgc gccctcggcg agaccctggc tgtcaccctc  
 420  
 atcctgcaga cgatgagccc catggcgctc aaacagaacc tcaacctgtc gatcttcgtc  
 480  
 ggtggtgaga cattcgcgtc gaagattgcc ggtaacttct ccgaggccat tagcgatccc  
 540  
 acctcgctgg gtgccctcgt ggcgtcggcc ctggccctgt tcgtcattac cttcgtggtc  
 600  
 aacgcgactg cccggttgat tgcggcgaag ggggttaagc gatgagcgcc accaccctg  
 660  
 accacatcac ccaccatggc gacaacacgc ccggacagct agatctctcc cgcctcgtc  
 720  
 gtaaacggac tatcaagagc ggctgcgcct caacattcat gatcgtggcc accgtactgg  
 780  
 ctgttatccc actggcctgg ctgctcttcg cggcgtccg gcgcggcacc ggatcactat  
 840  
 tccacgcgtc gtggtggacc cactcgatgg atccctcctt cgacttggcc gagcagggcg  
 900  
 ccatccacgc tatcgtcgga acccttgaaa ttggccttat tacatcgatt atctcggtag  
 960  
 cgatcgctct gatgaccgcg atcttcctag tcgagtacgc ccgcggaact aagatcgcca  
 1020  
 aggtcattag cttcgccgtc gacgtgctaa ccggtgtacc ttcaatcgtc gcggccctct  
 1080  
 tcgtcttcgc cgtagtcgtt accaccttcg gtggcaccca atccgcgtgg gcctcctcgt  
 1140  
 tggccctcat gacctcatg gttccgacgg tgctgcgac aaccgaggaa atgctcaagc  
 1200  
 tt  
 1202

&lt;210&gt; 262

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 262

Ala	Ser	Pro	Val	Ala	Phe	Val	Val	Asp	Leu	Leu	Ala	Ala	Val	Pro	Ser
1				5				10					15		
Ile	Val	Phe	Gly	Leu	Trp	Gly	Gly	Ile	Val	Phe	Gly	Ser	Ser	Gly	Ile
			20					25					30		
Ile	Asn	Gly	Tyr	Ala	Gly	Ala	Leu	Phe	Lys	Ala	Leu	Gly	Trp	Ile	Pro
			35				40					45			
Ile	Phe	Ser	Glu	Asp	Pro	Ser	Trp	Ser	Ser	Ala	Thr	Gly	Thr	Val	Tyr
			50				55				60				
Leu	Ala	Ser	Leu	Val	Leu	Ala	Ile	Met	Ile	Leu	Pro	Ile	Ile	Thr	Ala
65					70					75				80	
Val	Ser	Arg	Asp	Val	Met	Pro	Arg	Thr	Pro	His	Asp	Gln	Val	Glu	Ala
				85					90					95	
Ala	Leu	Ala	Leu	Gly	Ser	Thr	Arg	Trp	Glu	Val	Ile	Lys	Leu	Ala	Val
			100					105					110		
Phe	Pro	His	Ser	Arg	Ser	Gly	Ile	Ile	Ser	Gly	Ser	Met	Leu	Gly	Leu
			115				120					125			
Gly	Arg	Ala	Leu	Gly	Glu	Thr	Leu	Ala	Val	Thr	Leu	Ile	Leu	Gln	Thr

130                      135                      140  
 Met Ser Pro Met Ala Leu Lys Gln Asn Leu Asn Leu Ser Ile Phe Val  
 145                      150                      155                      160  
 Gly Gly Glu Thr Phe Ala Ser Lys Ile Ala Gly Asn Phe Ser Glu Ala  
                     165                      170                      175  
 Ile Ser Asp Pro Thr Ser Leu Gly Ala Leu Val Ala Ser Ala Leu Ala  
                     180                      185                      190  
 Leu Phe Val Ile Thr Phe Val Val Asn Ala Thr Ala Arg Leu Ile Ala  
                     195                      200                      205  
 Ala Lys Gly Val Lys Arg  
 210

<210> 263  
 <211> 424  
 <212> DNA  
 <213> Homo sapiens

<400> 263  
 acgcgtgagt gctctgcgct ggaaacaacg gtgatagagc ccatccgccc tgaactttcc  
 60  
 gacgtggtgc tcgtgaacaa gctcgaaaag tatgtacgcg aacgtacctc ggaagacgtt  
 120  
 gcgcacatgg aagaggatgc ggaccagacg ggcaacgaca tcctcagcac gatcctgctg  
 180  
 tcgaactggg atccactatt ggatatgacg acgcaggatc atgtgctggc catgcaaaag  
 240  
 gcttatatgg cctcgccatt ccgtgccaat ttggacctgg catacccatc ttcgacgcca  
 300  
 caggccccagt cccagccggc gatgccgccc tgggagacag ggacctcagc cagtagcatg  
 360  
 gcggatgctc gtgaatttgc gctgctgaag ctgtacctgc gtagcttgct gcagaagcac  
 420  
 gann  
 424

<210> 264  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 264  
 Met Glu Glu Asp Ala Asp Gln Thr Gly Asn Asp Ile Leu Thr Thr Ile  
 1                      5                      10                      15  
 Leu Leu Ser Asn Trp Asp Pro Leu Leu Asp Met Thr Thr Gln Asp His  
                     20                      25                      30  
 Val Leu Ala Met Gln Lys Ala Tyr Met Ala Ser Pro Phe Arg Ala Asn  
                     35                      40                      45  
 Leu Asp Leu Ala Tyr Pro Ser Ser Thr Pro Gln Ala Gln Ser Gln Pro  
                     50                      55                      60  
 Ala Met Pro Pro Trp Glu Thr Gly Thr Ser Ala Ser Ser Met Ala Asp  
 65                      70                      75                      80  
 Ala Arg Glu Phe Ala Leu Leu Lys Leu Tyr Leu Arg Ser Leu Leu Gln  
                     85                      90                      95  
 Lys His Xaa

<210> 265  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 265  
 ncgtacggcc ctggcgccg catggacgag ggataccatt cggcatgac ggtgccgggt  
 60  
 gccttcgact ccctcatcgg caagctcatc atcactggtg atagccgtga gcaagccctg  
 120  
 gctcgagctg cccgcgccct cgacgaaatc gtcacgacg gcatgccgac ggtcattccc  
 180  
 tttaccagg cgggtggtca cgaccgggt ttcactgccg ccgacggctg cttcggcgctc  
 240  
 tttaccgact ggatcgaaac cgagttcgac aacaagatcg agccatacac cgggtctctg  
 300  
 ggcgagtctg ccaattccga gcctcctcgt gaggtcgtcg tcgagggtcaa cggtaaacgc  
 360

<210> 266  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 266  
 Xaa Tyr Gly Pro Gly Val Arg Met Asp Glu Gly Tyr His Ser Gly Met  
 1 5 10 15  
 Thr Val Pro Gly Ala Phe Asp Ser Leu Ile Gly Lys Leu Ile Ile Thr  
 20 25 30  
 Gly Asp Ser Arg Glu Gln Ala Leu Ala Arg Ala Arg Ala Leu Asp  
 35 40 45  
 Glu Ile Val Ile Asp Gly Met Pro Thr Val Ile Pro Phe His Gln Ala  
 50 55 60  
 Val Val His Asp Pro Ala Phe Thr Ala Ala Asp Gly Cys Phe Gly Val  
 65 70 75 80  
 Phe Thr Asp Trp Ile Glu Thr Glu Phe Asp Asn Lys Ile Glu Pro Tyr  
 85 90 95  
 Thr Gly Ser Leu Gly Glu Ser Ala Asn Ser Glu Pro Pro Arg Glu Val  
 100 105 110  
 Val Val Glu Val Asn Gly Lys Arg  
 115 120

<210> 267  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 267  
 natectcaac gtgtgttcag ttccacgcga aagatcatgt tcgtcatcgg atcgatgccg  
 60  
 ttaacgcac ctagtcaatc caccgatggc gaccctggca aaaaatacga ggtgacttgg  
 120

ctagatctcg ggcaccttca ccctagtcgg cgggactcg tcaatcac cacaactgtc  
 180  
 gatgatgacg tcatcacctc ttcccaggta aatgtcggca acctccaccg cggggatgaa  
 240  
 aaacttttcg aagctcgcga ttaccgccag attccgatgc ttgcatcacg tcatggctgg  
 300  
 acagctccat tcattggtga gaccggcgca gcccatgcca tcgaggatgc gatgggcatt  
 360  
 accatcccaa ctgcgctggc atggatacga accctgctcg ctgagttcag cagaatcacc  
 420  
 tcacacttca catttttgtc atgggtaggc catcactgtg atgatgccg c  
 471

<210> 268

<211> 157

<212> PRT

<213> Homo sapiens

<400> 268

Xaa	Pro	Gln	Arg	Val	Phe	Ser	Ser	Thr	Arg	Lys	Ile	Met	Phe	Val	Ile
1				5					10					15	
Gly	Ser	Met	Pro	Leu	Thr	His	Pro	Ser	Gln	Ser	Thr	Asp	Gly	Asp	Pro
			20					25					30		
Gly	Lys	Lys	Tyr	Glu	Val	Thr	Trp	Leu	Asp	Leu	Gly	His	Leu	His	Pro
		35					40					45			
Ser	Arg	Pro	Gly	Leu	Val	Thr	Ile	Thr	Thr	Thr	Val	Asp	Asp	Asp	Val
		50				55					60				
Ile	Thr	Ser	Ser	Gln	Val	Asn	Val	Gly	Asn	Leu	His	Arg	Gly	Asp	Glu
65				70					75					80	
Lys	Leu	Phe	Glu	Ala	Arg	Asp	Tyr	Arg	Gln	Ile	Pro	Met	Leu	Ala	Ser
			85					90					95		
Arg	His	Gly	Trp	Thr	Ala	Pro	Phe	Ile	Gly	Glu	Thr	Gly	Ala	Ala	His
			100					105					110		
Ala	Ile	Glu	Asp	Ala	Met	Gly	Ile	Thr	Ile	Pro	Thr	Arg	Val	Ala	Trp
		115				120						125			
Ile	Arg	Thr	Leu	Leu	Ala	Glu	Phe	Ser	Arg	Ile	Thr	Ser	His	Phe	Thr
		130				135					140				
Phe	Leu	Ser	Trp	Val	Gly	His	His	Cys	Asp	Asp	Ala	Gly			
145					150						155				

<210> 269

<211> 387

<212> DNA

<213> Homo sapiens

<400> 269

acgcgtgtcg tggtttccaga aaaaaccaat aaattagagt ttatggtaga agtgattgct  
 60  
 gatatgacgg taatcaatcc atttgatttc tttgtggaaa gctacgcaga agactaccca  
 120  
 tttgcttatg acaaagctct taaaaaagag ttagaacctt atttacaggt ttctgaacct  
 180  
 tggttcgttac tcgacaaatg gctgtctggt gttgatcgtg aaaaaacacc gatcaatgat  
 240



tttctagtcg caataaacag tcgccttgcc ggtgatattg gctatggat tcgcttagaa  
 300  
 ccgggcgttc agtcacctga agaaacgctc acattaatga aaggctcttg tcgcgatacc  
 360  
 tcgggggttat tggttcaaact actacgc  
 387

<210> 270  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 270  
 Thr Arg Val Val Phe Pro Glu Lys Thr Asn Lys Leu Glu Phe Met Val  
 1 5 10 15  
 Glu Val Ile Ala Asp Met Thr Val Ile Asn Pro Phe Asp Phe Phe Val  
 20 25 30  
 Glu Ser Tyr Ala Glu Asp Tyr Pro Phe Ala Tyr Asp Lys Ala Leu Lys  
 35 40 45  
 Lys Glu Leu Glu Pro Tyr Leu Gln Val Ser Glu Pro Cys Ser Leu Leu  
 50 55 60  
 Asp Lys Trp Leu Ser Gly Val Asp Arg Glu Lys Thr Pro Ile Asn Asp  
 65 70 75 80  
 Phe Leu Val Ala Ile Asn Ser Arg Leu Ala Gly Asp Ile Gly Tyr Gly  
 85 90 95  
 Ile Arg Leu Glu Pro Gly Val Gln Ser Pro Glu Glu Thr Leu Thr Leu  
 100 105 110  
 Met Lys Gly Ser Cys Arg Asp Thr Ser Gly Leu Leu Val Gln Ile Leu  
 115 120 125  
 Arg

<210> 271  
 <211> 443  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
 gccggcacca acggaagtc ctctaccgcg cgcattggctg attcgctttt gcgtgccttc  
 60  
 caccgcccag tgggttttgt aaccagccca cacctgcagc gcgttactga gcgcacggc  
 120  
 attgatggcc agcccattca cccgcgcgat tatgtacgca tctggcacga gattaagcca  
 180  
 tttgtggaaa tggtcgatgc cgaatcggac ctgcctatgt ctaagttcga ggtcttcgtg  
 240  
 ggccctgtcct atgctgcgtt tgccgacgcc cccggggacg tcgctgtcgt cgaagtcggc  
 300  
 cttggcggac gttgggacgc taccaatgtg gtcaacgcgg atgtctctgt cattaccccg  
 360  
 gtgggcatgg accacacgga ttacctgggg gagacgatca ctgaaatcgc aggcgagaaa  
 420  
 gctggcatta ttaagccacg cgt  
 443

<210> 272  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 272  
 Ala Gly Thr Asn Gly Lys Ser Ser Thr Ala Arg Met Val Asp Ser Leu  
 1 5 10 15  
 Leu Arg Ala Phe His Arg Arg Val Gly Leu Val Thr Ser Pro His Leu  
 20 25 30  
 Gln Arg Val Thr Glu Arg Ile Gly Ile Asp Gly Gln Pro Ile His Pro  
 35 40 45  
 Arg Asp Tyr Val Arg Ile Trp His Glu Ile Lys Pro Phe Val Glu Met  
 50 55 60  
 Val Asp Ala Glu Ser Asp Val Pro Met Ser Lys Phe Glu Val Phe Val  
 65 70 75 80  
 Gly Leu Ser Tyr Ala Ala Phe Ala Asp Ala Pro Gly Asp Val Ala Val  
 85 90 95  
 Val Glu Val Gly Leu Gly Gly Arg Trp Asp Ala Thr Asn Val Val Asn  
 100 105 110  
 Ala Asp Val Ser Val Ile Thr Pro Val Gly Met Asp His Thr Asp Tyr  
 115 120 125  
 Leu Gly Glu Thr Ile Thr Glu Ile Ala Gly Glu Lys Ala Gly Ile Ile  
 130 135 140  
 Lys Pro Arg  
 145

<210> 273  
 <211> 864  
 <212> DNA  
 <213> Homo sapiens

<400> 273  
 caaagtaaga ctgcttcaaa ttttgtgttc tgctctgcag ctgctcccc cctgctgtcg  
 60  
 aagagaagcc aaagcccccc cccccacct caaaggctcg gaagtctggc atccctactt  
 120  
 ccgagcctgg atcccagtaa ggatcttgcc ctccctgcaa caccgagtgc cttagacagc  
 180  
 tgctgcctga gaactggcct ccagccggtg tcctcattcc atggggctcc ctgctgactg  
 240  
 catttcctga tctgggatga tgtttaccag cccaaaacca gtcattgtct tccaaaagct  
 300  
 tctctttgat agaattttga ggccatgcca cctcccttcc agtccacatg gaattccaga  
 360  
 atcagtcaca gcctctgatt ttttccaaga agagattgcc ttcaccattg ttaaatgtca  
 420  
 gcctgtacgg cagagacatg gtggctctgca caagcctgga caagttcttc catattgatg  
 480  
 gtgggagcaa cccctgtaat ctactccttg gaaggatttt ttgctttgct tatgaaaagc  
 540  
 tgtgcttgag acttaggtac ttttctcacg tggacacact gatcccatcc catattgcat  
 600

ctttgaagag atggatatca agtacacttt ggtagctgaa ataatcatat ctttctgatg  
 660  
 tctattgtat ctcctttgag gaaaagaaca cacattttta atggagattg gctgctttca  
 720  
 ggtatgtgtg tctatcattg aaagagcatg gactcaaaca tcagccctga gttcttgagt  
 780  
 ccaccaact cccatcttct tgtggcacag gaaagctgcc ctctccctct cccaccacac  
 840  
 tcttgactaa tgcccttcac gcgt  
 864

<210> 274

<211> 116

<212> PRT

<213> Homo sapiens

<400> 274

Met	Trp	Thr	Gly	Arg	Glu	Val	Ala	Trp	Pro	Gln	Asn	Ser	Ile	Lys	Glu
1				5				10						15	
Lys	Leu	Leu	Glu	Glu	His	Asp	Trp	Phe	Trp	Ala	Gly	Lys	His	His	Pro
		20						25					30		
Arg	Ser	Gly	Asn	Ala	Val	Ser	Arg	Glu	Pro	His	Gly	Met	Arg	Thr	Pro
		35					40					45			
Ala	Gly	Gly	Gln	Phe	Ser	Gly	Ser	Ser	Cys	Leu	Arg	His	Ser	Val	Leu
	50					55					60				
Gln	Gly	Gly	Gln	Asp	Pro	Tyr	Trp	Asp	Pro	Gly	Ser	Glu	Val	Gly	Met
65				70						75				80	
Pro	Asp	Phe	Arg	Ala	Phe	Glu	Val	Gly	Gly	Gly	Gly	Phe	Gly	Phe	Ser
			85					90						95	
Ser	Thr	Ala	Gly	Gly	Ser	Glu	Leu	Gln	Ser	Arg	Thr	Gln	Asn	Leu	Lys
			100					105					110		
Gln	Ser	Tyr	Phe												
			115												

<210> 275

<211> 911

<212> DNA

<213> Homo sapiens

<400> 275

naaatttaaa ggaacctccc ttctataacg gagagtatatt attgcagctt tcctttctgt  
 60  
 ttattttcag gaatgaaagg aattaccag cttctgctt ttataacctac agctgaaagt  
 120  
 aattcctttc agcctcaggt gaagactttg ccattctcaa ttgatgctaa acagcagttg  
 180  
 caacggaaaa tccagaagaa gcagcaagaa cagaaactac aatccccctt gccaggagaa  
 240  
 tctgcagcaa aaaagtcaga aagtgtaca agcaatggag tgactaatct tcctaattgga  
 300  
 aatccttcaa tcctttctcc tcaacctatt ggtatcgttg tggcagctgt ccctagtccc  
 360  
 attccgggtcc agcggactag gcaattggta acttcaccga gtccaatgag ttcttctnga  
 420

cggc aaagtt cttccctca atgtacaggt ggtcactcag cacatgcagt ctgtgaaaca  
 480  
 ggccaccaaag actccccaga acgttccagc agtcctgggtg ggaatcgttc tgcccgccac  
 540  
 cgttaccctc agatcttacc caaaccagcg aacaccagtg cactcaccat tcgctctcca  
 600  
 actactgtcc tctttactag tagtcccatc aaaactgctg ttgtaccgcg ttcacacatg  
 660  
 agttctctaa atgtgggtgaa aatgacaaca atatcctca caccagcaa cagtaacacc  
 720  
 cctcttaaac attctgctc agtcagcagt gctacaggaa caacagaaga atcaaggagt  
 780  
 gttccacaga tcaagaatgg ttctgtcgtg tcgcttcagt ctctggggtc caggagcagc  
 840  
 agtgccggggg gaacatctgc tgtggaagtc aaagtggaac ccgaaacatc atcagatgag  
 900  
 catcctgtac a  
 911

<210> 276

<211> 279

<212> PRT

<213> Homo sapiens

<400> 276

Met	Lys	Gly	Ile	Thr	Gln	Pro	Ser	Ala	Phe	Ile	Pro	Thr	Ala	Glu	Ser
1				5					10					15	
Asn	Ser	Phe	Gln	Pro	Gln	Val	Lys	Thr	Leu	Pro	Ser	Pro	Ile	Asp	Ala
			20					25					30		
Lys	Gln	Gln	Leu	Gln	Arg	Lys	Ile	Gln	Lys	Lys	Gln	Gln	Glu	Gln	Lys
		35				40						45			
Leu	Gln	Ser	Pro	Leu	Pro	Gly	Glu	Ser	Ala	Ala	Lys	Lys	Ser	Glu	Ser
	50					55					60				
Ala	Thr	Ser	Asn	Gly	Val	Thr	Asn	Leu	Pro	Asn	Gly	Asn	Pro	Ser	Ile
65					70					75				80	
Leu	Ser	Pro	Gln	Pro	Ile	Gly	Ile	Val	Val	Ala	Ala	Val	Pro	Ser	Pro
				85					90					95	
Ile	Pro	Val	Gln	Arg	Thr	Arg	Gln	Leu	Val	Thr	Ser	Pro	Ser	Pro	Met
			100					105					110		
Ser	Ser	Ser	Xaa	Arg	Gln	Ser	Ser	Ser	Pro	Gln	Cys	Thr	Gly	Gly	His
		115				120						125			
Ser	Ala	His	Ala	Val	Cys	Glu	Thr	Gly	Thr	Lys	Asp	Ser	Pro	Glu	Arg
	130					135					140				
Ser	Ser	Ser	Pro	Gly	Gly	Asn	Arg	Ser	Ala	Arg	His	Arg	Tyr	Pro	Gln
145					150					155				160	
Ile	Leu	Pro	Lys	Pro	Ala	Asn	Thr	Ser	Ala	Leu	Thr	Ile	Arg	Ser	Pro
				165					170					175	
Thr	Thr	Val	Leu	Phe	Thr	Ser	Ser	Pro	Ile	Lys	Thr	Ala	Val	Val	Pro
		180						185					190		
Ala	Ser	His	Met	Ser	Ser	Leu	Asn	Val	Val	Lys	Met	Thr	Thr	Ile	Ser
		195					200					205			
Leu	Thr	Pro	Ser	Asn	Ser	Asn	Thr	Pro	Leu	Lys	His	Ser	Ala	Ser	Val
	210					215					220				
Ser	Ser	Ala	Thr	Gly	Thr	Thr	Glu	Glu	Ser	Arg	Ser	Val	Pro	Gln	Ile

```
<210> 277
<211> 652
<212> DNA
<213> Homo sapiens
```

60  
 nnaccggtgg ggactctcgc tgaggtcctt aatggccctt ctggtgtccc ggacggcacc  
 atgaaccttg ttggtgggct gcgtcaggca atggccacca ctggttactc ggaggtcaaa  
 120  
 gagttccagc gcatcgagct gacgattcgc taaccgttcc accacgcaga atggtgttcc  
 180  
 ggtgagcggg tggatagcta gccttcggcc atgagtgaag tgcccgatga attggtcgtg  
 240  
 ttgcgtggcg cgattgacaa catggacgcc gccctcatcc atctgcttgc cgaaagggtc  
 300  
 cggattactc gcgaggtagg ccgcctcaag gcggagtgcg gtttacctcc ggccgacccc  
 360  
 gcccgtagg ctgagcagat cgcgcggttg cggcagttag cggtcgagtc gaacctcgac  
 420  
 cccgaattcg cgcagaaggt catcacgttc atcgtggccg aggtggtgcg tcaccacgaa  
 480  
 gctattgctg acgattctgg cgacgactct ggagtgggcg atacggggga ggcggatgtc  
 540  
 cctgggtcgg gcagctgagt tacagatcag gcgatgacgt cgccttggtg caccttcgac  
 600  
 gggattccga cgacgactgt gccggggggc acatccttga cgaccaacgc gt  
 652

```
<210> 278
<211> 115
<212> PRT
<213> Homo sapiens
```

Met	Ser	Glu	Val	Pro	Asp	Glu	Leu	Val	Val	Leu	Arg	Gly	Ala	Ile	Asp
1				5					10					15	
Asn	Met	Asp	Ala	Ala	Leu	Ile	His	Leu	Leu	Ala	Glu	Arg	Phe	Arg	Ile
			20					25					30		
Thr	Arg	Glu	Val	Gly	Arg	Leu	Lys	Ala	Glu	Cys	Gly	Leu	Pro	Pro	Ala
			35				40					45			
Asp	Pro	Ala	Arg	Glu	Ala	Glu	Gln	Ile	Ala	Arg	Leu	Arg	Gln	Leu	Ala
			50			55					60				
Val	Glu	Ser	Asn	Leu	Asp	Pro	Glu	Phe	Ala	Gln	Lys	Val	Ile	Thr	Phe
65					70					75				80	
Ile	Val	Ala	Glu	Val	Val	Arg	His	His	Glu	Ala	Ile	Ala	Asp	Asp	Ser

85 90 95  
 Gly Asp Asp Ser Gly Val Ala Asp Thr Gly Glu Ala Asp Val Pro Gly  
 100 105 110  
 Ser Gly Ser  
 115

<210> 279  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
 cgggagggtca cacaagcatt caaaccatag cagatggtaa atgttatggt atgtgtatatt  
 60  
 taccacaatc cttaaaaaaga aaagaaagaa aggcatatgg aaccocctagt tacctctcat  
 120  
 ccagcttcaa aattgtcagt gcatgggtcaa tctgtcttta tctgccccctc acccaccctt  
 180  
 ttccagaaaag aagacccaga ggattccaca tctgcctgga aaccacgacc agtctcgact  
 240  
 ggaagtgtgt gttaatgttg catgtattca taaaacctct aggcatttct agtgtccctc  
 300  
 agaatttttc caaattcagg caaacacaga aattacttcc aaaaattt  
 348

<210> 280  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 280  
 Met Cys Ile Leu Pro Gln Ser Leu Lys Arg Lys Glu Arg Lys Ala Tyr  
 1 5 10 15  
 Gly Thr Pro Ser Tyr Leu Ser Ser Ser Phe Lys Ile Val Ser Ala Trp  
 20 25 30  
 Ser Ile Leu Ser Tyr Leu Pro Leu Thr His Pro Phe Pro Glu Arg Arg  
 35 40 45  
 Pro Arg Gly Phe His Ile Cys Leu Glu Thr Thr Thr Ser Leu Asp Trp  
 50 55 60  
 Lys Leu Leu Leu Met Leu His Val Phe Ile Lys Pro Leu Gly Ile Ser  
 65 70 75 80  
 Ser Val Pro Gln Asn Phe Ser Lys Phe Arg Gln Thr Gln Lys Leu Leu  
 85 90 95  
 Pro Lys Ile

<210> 281  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 281  
 agatctgacg agatcgataa tggattaaag actcttgacg ctggagtcac cgagatgaac  
 60

aacaagggtgt tgggggcaac gaaggctgtc ggtgattcca ccactaccgt caaccagggtg  
120  
aattctgcgt taggaantgc cgactcagcg gcagagaaga cgtcgagcgc cgttactcag  
180  
acgcgcgtgg gtgcccaggc gattaccggc gctgctcaaa atgtcatggc tgattcccaa  
240  
gctgtcaact cagccatggt tccgcttatt aataacgtga caaagaatct tectaccttg  
300  
caaaaacagg ccaggaatct cgtgtcagtg aacggtaccc tgcagaaccc caacggtgat  
360  
tctgtcatta agattcaaca gacc  
384

<210> 282

<211> 110

<212> PRT

<213> Homo sapiens

<400> 282

Met	Asn	Asn	Lys	Val	Leu	Gly	Ala	Thr	Lys	Ala	Val	Gly	Asp	Ser	Thr
1			5					10					15		
Thr	Thr	Val	Asn	Gln	Val	Asn	Ser	Ala	Leu	Gly	Xaa	Ala	Asp	Ser	Ala
		20					25					30			
Ala	Glu	Lys	Thr	Ser	Ser	Ala	Val	Thr	Gln	Thr	Arg	Val	Gly	Ala	Gln
	35					40					45				
Ala	Ile	Thr	Gly	Ala	Ala	Gln	Asn	Val	Met	Ala	Asp	Ser	Gln	Ala	Val
	50				55				60						
Asn	Ser	Ala	Met	Val	Pro	Leu	Ile	Asn	Asn	Val	Thr	Lys	Asn	Leu	Pro
65				70				75					80		
Thr	Leu	Gln	Lys	Gln	Ala	Arg	Asn	Leu	Val	Ser	Val	Asn	Gly	Thr	Leu
		85					90					95			
Gln	Asn	Pro	Asn	Gly	Asp	Ser	Val	Ile	Lys	Ile	Gln	Gln	Thr		
		100					105					110			

<210> 283

<211> 426

<212> DNA

<213> Homo sapiens

<400> 283

cgcgtagacc aatgtgagac ggccgtcacc aagggcatgc gcgacaagtc ggttggttagc  
60  
ggaccggata ttgtgcgtcg cgagctgcgc catgtcgtga cgagcggcac gattgtcgat  
120  
ggaagcgtac tggctgacga attgagcagc tactgcatga gtatcaagga gcacgtccgc  
180  
tctgatggcc tatccgagtt tggcatctgc accctcgacg ccgccaccgc cgagttccga  
240  
tacatgacat tcgtcgacga tgccgtgctg tcacaactcg agacattgct gcgttctcta  
300  
cgcatacaagg aagtcttgca tgaaaaaggg gtcattgttc cttccacgct gcgcttgatc  
360  
cgcaacgcgg tgcccaccac ctgccaaatt accatgctca agcctgatac cgaattgtcg  
420

gagaga  
426

<210> 284  
<211> 142  
<212> PRT  
<213> Homo sapiens

<400> 284  
Arg Val Asp Gln Cys Glu Thr Ala Val Thr Lys Gly Met Arg Asp Lys  
1 5 10 15  
Ser Val Gly Ser Gly Pro Asp Ile Val Arg Arg Glu Leu Arg His Val  
20 25 30  
Val Thr Ser Gly Thr Ile Val Asp Gly Ser Val Leu Ala Asp Glu Leu  
35 40 45  
Ser Ser Tyr Cys Met Ser Ile Lys Glu His Val Arg Ser Asp Gly Leu  
50 55 60  
Ser Glu Phe Gly Ile Cys Thr Leu Asp Ala Ala Thr Ala Glu Phe Arg  
65 70 75 80  
Tyr Met Thr Phe Val Asp Asp Ala Val Leu Ser Gln Leu Glu Thr Leu  
85 90 95  
Leu Arg Ser Leu Arg Ile Lys Glu Val Leu His Glu Lys Gly Val Met  
100 105 110  
Leu Pro Ser Thr Leu Arg Leu Ile Arg Asn Ala Val Pro Thr Thr Cys  
115 120 125  
Gln Ile Thr Met Leu Lys Pro Asp Thr Glu Leu Ser Glu Arg  
130 135 140

<210> 285  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 285  
acgcgtgcag tcccttaccg acatgctggc agatgagctc gacggcagcc gcttcaccgg  
60  
cgattttctca gaaatctaca aacgtcagaa ctcgatcttc ggcgatgtaa ggaataactt  
120  
ttacaaaaaa ggataccgca tcatcaacgt agcgaatggt gtattgcgca agatttcact  
180  
ggtaagcgca ggcaatgcag acaatgtgaa aggtcaggcc ctgttcttcc gcggtgtggc  
240  
gcatttcgaa ctcgctgcgtt tgtttgcaca accctgggggt tataacttcgg acaattcaca  
300  
ctacggcatc ccgctccgca atgaaatcgt aattggttct attcn  
345

<210> 286  
<211> 107  
<212> PRT  
<213> Homo sapiens

<400> 286  
Met Leu Ala Asp Glu Leu Asp Gly Ser Arg Phe Thr Gly Asp Phe Ser



```

      1             5             10             15
Glu Ile Tyr Lys Arg Gln Asn Ser Ile Phe Gly Asp Val Arg Asn Asn
      20             25             30
Phe Tyr Lys Lys Gly Tyr Arg Ile Ile Asn Val Ala Asn Gly Val Leu
      35             40             45
Arg Lys Ile Ser Leu Val Ser Ala Gly Asn Ala Asp Asn Val Lys Gly
      50             55             60
Gln Ala Leu Phe Phe Arg Gly Val Ala His Phe Glu Leu Val Arg Leu
      65             70             75             80
Phe Ala Gln Pro Trp Gly Tyr Thr Ser Asp Asn Ser His Tyr Gly Ile
      85             90             95
Pro Leu Arg Asn Glu Ile Val Ile Gly Ser Ile
      100             105

```

&lt;210&gt; 287

&lt;211&gt; 1379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 287

```

nnttaactgc ccctttgcag tctttattct gggacattag cactgtctgg ttatcttgc
60
tcagttgagg gattcgggac aatagcagtg ctgatggtaa tgttgccgat ttcctgttt
120
gttttgcagg tcacggccag gggctttggg ccgctgttac agtttgcccta cactgccaa
180
ctgttactca gcagagaaaa catccgcgag gtcacccgct gtgctgagtt cctgcgcag
240
cacaacctgg aggactcctg cttcagcttc ctgcagaccc agctcctgaa cagtgaggat
300
ggcctgtttg tgtgccggaa ggatgctgcg tgccagcgcc cacacgagga ctgcgagaac
360
tctgcaggag aggaggagga tgaagaggag gagacgatgg attcagagac ggccaagat
420
gcttgcccca gggaccagat gcttcagag cccatcagct ttgaggccgc cgccatcccc
480
gtagcagaga aggaagaagc cctgctgccc gagcctgacg tgcccacaga caccaaggag
540
agctcagaaa aggacgcgtt aacgcagtac cccagataca agaaatacca gcttgcatgt
600
accaagaatg tctataatgc atcatcacac agtacctcag gttttgcaag cacattccgg
660
gaagataact ctagcaacag cctcaagccg gggcttgcca gggggcagat taaaagtga
720
ccgcccagtg aagagaatga ggaagagagc atcacgctct gcctgtctgg agatgagcct
780
gacgccaagg acagagcggg ggatgtcgag atggaccgga aacagcccag ccctgcccct
840
acccccacgg ccccgctgg ggccgctgc ctggagagat ccaggagcgt ggcctgcgcc
900
tcctgcttaa ggtctctgtt cagcataacg aaaagtgtgg agctgtctgg cctgcccagt
960
acatctcagc agcactttgc caggagtcca gcctgccctt ttgacaaggg gatcactcag
1020

```

ggtgacctta aaactgacta cacccttttc acaggggaatt atggacagcc ccacgtgggc  
 1080  
 cagaaggagg tgtccaactt caccatgggg tcgccccctca gggggcctgg gttggaggct  
 1140  
 ctctgtaaac aggagggaga gctggaccgg aggagcgtga tcttctctc cagcgttgt  
 1200  
 gaccaagtga gcacctcggg gcattcttat tctgggggtga gcagtttgga caaagacctc  
 1260  
 tctgagccgg tgccaaaggg tctgtgggtg ggagccggcc agtccctccc cagctcgag  
 1320  
 gcctactccc acggtgggct gatggccgac cacttgccag gaaggatgcg gcccaacac  
 1379

<210> 288

<211> 428

<212> PRT

<213> Homo sapiens

<400> 288

Met	Val	Met	Leu	Ala	Ile	Ser	Leu	Phe	Val	Leu	Gln	Val	Thr	Ala	Arg
1			5						10					15	
Gly	Phe	Gly	Pro	Leu	Leu	Gln	Phe	Ala	Tyr	Thr	Ala	Lys	Leu	Leu	Leu
			20					25					30		
Ser	Arg	Glu	Asn	Ile	Arg	Glu	Val	Ile	Arg	Cys	Ala	Glu	Phe	Leu	Arg
		35					40					45			
Met	His	Asn	Leu	Glu	Asp	Ser	Cys	Phe	Ser	Phe	Leu	Gln	Thr	Gln	Leu
		50					55				60				
Leu	Asn	Ser	Glu	Asp	Gly	Leu	Phe	Val	Cys	Arg	Lys	Asp	Ala	Ala	Cys
65					70					75				80	
Gln	Arg	Pro	His	Glu	Asp	Cys	Glu	Asn	Ser	Ala	Gly	Glu	Glu	Glu	Asp
			85						90					95	
Glu	Glu	Glu	Glu	Thr	Met	Asp	Ser	Glu	Thr	Ala	Lys	Met	Ala	Cys	Pro
			100						105				110		
Arg	Asp	Gln	Met	Leu	Pro	Glu	Pro	Ile	Ser	Phe	Glu	Ala	Ala	Ala	Ile
		115					120					125			
Pro	Val	Ala	Glu	Lys	Glu	Glu	Ala	Leu	Leu	Pro	Glu	Pro	Asp	Val	Pro
		130					135					140			
Thr	Asp	Thr	Lys	Glu	Ser	Ser	Glu	Lys	Asp	Ala	Leu	Thr	Gln	Tyr	Pro
145					150					155				160	
Arg	Tyr	Lys	Lys	Tyr	Gln	Leu	Ala	Cys	Thr	Lys	Asn	Val	Tyr	Asn	Ala
			165						170					175	
Ser	Ser	His	Ser	Thr	Ser	Gly	Phe	Ala	Ser	Thr	Phe	Arg	Glu	Asp	Asn
		180					185						190		
Ser	Ser	Asn	Ser	Leu	Lys	Pro	Gly	Leu	Ala	Arg	Gly	Gln	Ile	Lys	Ser
		195					200					205			
Glu	Pro	Pro	Ser	Glu	Glu	Asn	Glu	Glu	Glu	Ser	Ile	Thr	Leu	Cys	Leu
		210				215						220			
Ser	Gly	Asp	Glu	Pro	Asp	Ala	Lys	Asp	Arg	Ala	Gly	Asp	Val	Glu	Met
225					230					235				240	
Asp	Arg	Lys	Gln	Pro	Ser	Pro	Ala	Pro	Thr	Pro	Thr	Ala	Pro	Ala	Gly
			245						250					255	
Ala	Ala	Cys	Leu	Glu	Arg	Ser	Arg	Ser	Val	Ala	Ser	Pro	Ser	Cys	Leu
		260					265						270		
Arg	Ser	Leu	Phe	Ser	Ile	Thr	Lys	Ser	Val	Glu	Leu	Ser	Gly	Leu	Pro

```

<400> 289
ngcattaccg ggctgaagac ggggtgctcat gacctcaacg atataggcta ttgctagaac
60
cacgccggcc cacgccgcgc aaagcgcaga cacggcacca ggaggggtca catggctgat
120
agcaagtcga aggcgaagga cgagcgcact gccgatgaga tcaggcgggga tattgcagcg
180
accctgtgctt gcctggcagc cggggtggag aacctcgtgg aggaggtgca tccggcaacc
240
ctcaagcgtg aagcatctga tcgtgcccgt gattttgtgc aggggtgagtt tgatcaggtc
300
aagagccagg tcaaagatga gaaatggtgg cgcgtgcagc ggatcgcgat ggccgcagga
360
gtgctcgtg cggcgctcgt cagcattatt gtgctgcgcg cgatagtcgg tcgcgcaacg
420
ggcgctaccg ctcgtcgcaa gcttgagaag ctgcagcttt ctcaggcgaa gcgggttcga
480
aaagatgcc a gcagcgtag taaggaagat gaaaaggcag ccaagaaaaa tgccaagctc
540
ggcaagaaga acgctaagaa gtacggcaag ctcgataccg atgactcgtc ggtaaagcaac
600
cttgccgaga aaatgctcaa acaggccgcc gtgctgcgtg cacaggcggc tgccggggcg
660
tgagaacagt gccgcctagc aaacagcggc cacagcgcaa aacaggtttg gtcgccacc
720
atggtggacc ggagccaaac tgtgttaccg catcatttga taccgccagc agccaggcct
780
gcgacaatgc gacgctggaa taccagcacc atgatgacta gt
822

```

<210> 290  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 290  
 Met Ala Asp Ser Lys Ser Lys Ala Lys Asp Glu Arg Thr Ala Asp Glu  
 1 5 10 15  
 Ile Arg Arg Asp Ile Ala Ala Thr Arg Ala Cys Leu Ala Ala Gly Val  
 20 25 30  
 Glu Asn Leu Val Glu Glu Val His Pro Ala Thr Leu Lys Arg Glu Ala  
 35 40 45  
 Ser Asp Arg Ala Arg Asp Phe Val Gln Gly Glu Phe Asp Gln Val Lys  
 50 55 60  
 Ser Gln Val Lys Asp Glu Lys Trp Trp Arg Val Gln Arg Ile Ala Met  
 65 70 75 80  
 Ala Ala Gly Val Leu Ala Ala Gly Val Val Ser Ile Ile Val Leu Arg  
 85 90 95  
 Ala Ile Val Gly Arg Ala Thr Gly Ala Thr Ala Arg Arg Lys Leu Glu  
 100 105 110  
 Lys Leu Gln Leu Ser Gln Ala Lys Arg Val Arg Lys Asp Ala Lys Gln  
 115 120 125  
 Arg Ser Lys Glu Asp Glu Lys Ala Ala Lys Lys Asn Ala Lys Leu Gly  
 130 135 140  
 Lys Lys Asn Ala Lys Lys Tyr Gly Lys Leu Asp Thr Asp Asp Ser Ser  
 145 150 155 160  
 Val Ser Asn Leu Ala Glu Lys Met Leu Lys Gln Ala Ala Val Leu Arg  
 165 170 175  
 Ala Gln Ala Ala Ala Gly Ala  
 180

<210> 291  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 291  
 ctccacgccg acaagactta cgacgggctg cgctgccggg ctgagtgcgc ggcccgtcc  
 60  
 atcaccccc gcacgctcg ccgcggcgtg gagaccagcg agcgcttggg ccggtatcgc  
 120  
 tgggtcgtcg agcgacatt cgctggctc aaccgcttcc ggcgctcgc catccgtac  
 180  
 gagcggcgtg ctgacatcca cgaagccttc gtgacctcgc gctgcgcct catctgcctc  
 240  
 aaccagatca gacggttttg ttaggtgctg taaagggaga atggctgcag ctgggctatc  
 300  
 tgctccctcg tcaaccagaa acaggctgct catcctcact caacaacgcg t  
 351

<210> 292  
 <211> 87  
 <212> PRT

<213> Homo sapiens

<400> 292

Leu His Ala Asp Lys Thr Tyr Asp Gly Arg Arg Cys Arg Ala Glu Cys  
 1 5 10 15  
 Arg Ala Arg Ser Ile Thr Pro Arg Ile Ala Arg Arg Gly Val Glu Thr  
 20 25 30  
 Ser Glu Arg Leu Gly Arg Tyr Arg Trp Val Val Glu Arg Thr Phe Ala  
 35 40 45  
 Trp Leu Asn Arg Phe Arg Arg Leu Ala Ile Arg Tyr Glu Arg Arg Ala  
 50 55 60  
 Asp Ile His Glu Ala Phe Val Ile Leu Gly Cys Ala Leu Ile Cys Leu  
 65 70 75 80  
 Asn Gln Ile Arg Arg Phe Cys  
 85

<210> 293

<211> 716

<212> DNA

<213> Homo sapiens

<400> 293

nncttcacca caccggccat caacgcacct cctcgtgata acttgacctt ctgccgaacc  
 60  
 ggtaaatcag tttagtggcg aggcattgaca cgttgacgag tcagctgtgg tacatgtgcg  
 120  
 gaacactcac aatgccacgg cggcatgttg ctgtcgggtca cgacccttat ggtgatcgct  
 180  
 gtgagaaccc gaacggcaga tgcgattctg gcggcactgg atctgaacag gtttaagggt  
 240  
 gcgaagactt tcgatgttcc agtgtgcgtc atagctgggtg ccgggacagg taaaactcgt  
 300  
 gctgtcactc atcgattgc ctacggtgca gcgacaggca agcttgatcc gcgtcgtacc  
 360  
 ctgcgggtca cttttacgac taaggcagct ggcacgatga gaggtcgact cgccgatctg  
 420  
 ggggttggtg gtgtgcaggc tcgcactatt cattctgcgg cgttgcggca gatcaagttt  
 480  
 ttctggcctc gtgcatataa ctgtgagttg ccaccggtga gtgattctcg tttctcgatg  
 540  
 gtggcggaga cgacccatcg cattggtctg ggcaatgaca aggcgctgct gcgcgacttg  
 600  
 tccgccgaga tctcgtgggc gaaggtctca aatgtgccga ctgatcaata cgcattccctg  
 660  
 gctagggcgg aaggtcgggt ggtggcggga gtttcggcâa ctgacgtagg acgctg  
 716

<210> 294

<211> 190

<212> PRT

<213> Homo sapiens

<400> 294

Met Leu Leu Ser Val Thr Thr Leu Met Val Ile Ala Val Arg Thr Arg

```

      1           5           10           15
Thr Ala Asp Ala Ile Leu Ala Ala Leu Asp Leu Asn Arg Phe Lys Val
      20           25           30
Ala Lys Thr Phe Asp Val Pro Val Cys Val Ile Ala Gly Ala Gly Thr
      35           40           45
Gly Lys Thr Arg Ala Val Thr His Arg Ile Ala Tyr Gly Ala Ala Thr
      50           55           60
Gly Lys Leu Asp Pro Arg Arg Thr Leu Ala Val Thr Phe Thr Thr Lys
      65           70           75           80
Ala Ala Gly Thr Met Arg Gly Arg Leu Ala Asp Leu Gly Val Val Gly
      85           90           95
Val Gln Ala Arg Thr Ile His Ser Ala Ala Leu Arg Gln Ile Lys Phe
      100          105          110
Phe Trp Pro Arg Ala Tyr Asn Cys Glu Leu Pro Pro Val Ser Asp Ser
      115          120          125
Arg Phe Ser Met Val Ala Glu Thr Thr His Arg Ile Gly Leu Gly Asn
      130          135          140
Asp Lys Ala Leu Leu Arg Asp Leu Ser Ala Glu Ile Ser Trp Ala Lys
      145          150          155          160
Val Ser Asn Val Pro Thr Asp Gln Tyr Ala Ser Leu Ala Arg Ala Glu
      165          170          175
Gly Arg Val Val Ala Gly Val Ser Ala Thr Asp Val Gly Arg
      180          185          190

```

<210> 295  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

```

<400> 295
ttcatatcag gcagtagccg agtccatgcg atcaacaacg tcagcgtatc tttcaccat
60
tctggagtgc accttctcat gggagaaagc ggatcaggaa aaagcaccct catcaatctc
120
ctagctgggc tggatacccc agattcgggg tccgtctacg cagaaggcgt caccgtatct
180
gatcagagcg aggcgagcag agcccaattt cgattacgcc acatcgccgt catcttccag
240
gacgacaacc tcatcgctga gttgaccaat accgagaata ttgcgctacc cctgtgggcg
300
cagggcacat cgaagtccga tgccactgaa atcgccacg aagccatgcg aaaactagga
360
atcgagtcac tgggcagacg ctaccccggc gaggtctcgg gtggccaacg gcaacgc
417

```

<210> 296  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

```

<400> 296
Phe Ile Ser Gly Ser Thr Arg Val His Ala Ile Asn Asn Val Ser Val
      1           5           10           15
Ser Phe Thr His Ser Gly Val His Leu Leu Met Gly Glu Ser Gly Ser

```

```

      20      25      30
Gly Lys Ser Thr Leu Ile Asn Leu Leu Ala Gly Leu Asp Thr Pro Asp
      35      40      45
Ser Gly Ser Val Tyr Ala Glu Gly Val Thr Val Ser Asp Gln Ser Glu
      50      55      60
Ala Ser Arg Ala Gln Phe Arg Leu Arg His Ile Ala Val Ile Phe Gln
      65      70      75      80
Asp Asp Asn Leu Ile Ala Glu Leu Thr Asn Thr Glu Asn Ile Ala Leu
      85      90      95
Pro Leu Trp Ala Gln Gly Thr Ser Lys Ser Asp Ala Thr Glu Ile Ala
      100      105      110
His Glu Ala Met Arg Lys Leu Gly Ile Glu Ser Leu Gly Arg Arg Tyr
      115      120      125
Pro Gly Glu Val Ser Gly Gly Gln Arg Gln Arg
      130      135

```

<210> 297  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

```

<400> 297
tacaccatcg gtgaccagat tgtcgaagct ctgcaggtgc actcgaagat gtccgacaag
60
gacgcttggg cgcgtgccat cgagctgctc gacttgggtgg ggattccgaa tcccagagtg
120
cgtgccaaag cttttccgca cgagttttcc ggtggcatga ggcaacgagt cgtcatcgcc
180
atggccatcg cgaacgaccc tgacctcatc atcgccgacg agccgacgac ggccctcgac
240
gtgaccatcc aggcccagat tctcgatttg ctgcgcgtag cccagcgtga aacccatgcg
300
ggcgtcgtaa tgatcaccca cgacctcggt gtggtagctg gtctggctga cagggttgcc
360
gtgatgtatg ccggacgc
378

```

<210> 298  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

```

<400> 298
Tyr Thr Ile Gly Asp Gln Ile Val Glu Ala Leu Gln Val His Ser Lys
1      5      10      15
Met Ser Asp Lys Asp Ala Trp Ala Arg Ala Ile Glu Leu Leu Asp Leu
20      25      30
Val Gly Ile Pro Asn Pro Glu Val Arg Ala Lys Ala Phe Pro His Glu
35      40      45
Phe Ser Gly Gly Met Arg Gln Arg Val Val Ile Ala Met Ala Ile Ala
50      55      60
Asn Asp Pro Asp Leu Ile Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp
65      70      75      80
Val Thr Ile Gln Ala Gln Ile Leu Asp Leu Leu Arg Val Ala Gln Arg

```

			85					90				95			
Glu	Thr	His	Ala	Gly	Val	Val	Met	Ile	Thr	His	Asp	Leu	Gly	Val	Val
			100					105					110		
Ala	Gly	Leu	Ala	Asp	Arg	Val	Ala	Val	Met	Tyr	Ala	Gly	Arg		
		115					120					125			

<210> 299  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 299  
 gtgcacggtt tcgttgcat gcgcaatgac cgggagaact tgcgttttga tccgagactt  
 60  
 ccagcccaat ggacgtcgat caaacaccac atgctcattg gcgactctca catgctcggt  
 120  
 ttcctggaac gtgacgccat tacgttccag attctgtcgg gccatgaccg cgacgtgaca  
 180  
 gtgcgcggtg agctctacca cattgggggt gagccggtga ggggtccggt gtccgatcag  
 240  
 gggccggttg gtcttagcct gcgcgttacc catccgatct cggggttgcg tcgagctgac  
 300  
 ggttctctta tcactgcaga agttcccggc agcattgctg agacgattgg gtcttctccg  
 360  
 atctcgac  
 368

<210> 300  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

Val	His	Gly	Phe	Val	Gly	Met	Arg	Asn	Asp	Arg	Glu	Asn	Leu	Arg	Phe
1			5					10					15		
Asp	Pro	Arg	Leu	Pro	Ala	Gln	Trp	Thr	Ser	Ile	Lys	His	His	Met	Leu
		20						25					30		
Ile	Gly	Asp	Ser	His	Met	Leu	Val	Phe	Leu	Glu	Arg	Asp	Ala	Ile	Thr
		35				40						45			
Phe	Gln	Ile	Leu	Ser	Gly	His	Asp	Arg	Asp	Val	Thr	Val	Arg	Gly	Glu
	50				55					60					
Leu	Tyr	His	Ile	Gly	Val	Glu	Pro	Val	Arg	Val	Pro	Leu	Ser	Asp	Gln
65			70						75					80	
Gly	Pro	Leu	Arg	Pro	Ser	Leu	Arg	Val	Thr	His	Pro	Ile	Ser	Gly	Leu
		85						90					95		
Arg	Arg	Ala	Asp	Gly	Ser	Leu	Ile	Thr	Ala	Glu	Val	Pro	Gly	Ser	Ile
		100					105						110		
Ala	Glu	Thr	Ile	Gly	Ser	Ser	Pro	Ile	Ser						
		115					120								

<210> 301  
 <211> 456  
 <212> DNA  
 <213> Homo sapiens



&lt;400&gt; 301

ggccgggtta ttgccgcc gtttgctggg gaaaccggc agacctcga gcgcaccggc  
 60  
 aaccggcgcg actattccgt accgccgcc gaaccgacct tgctcgacag gcttacggac  
 120  
 gcggggccgga cggatgacgc aatcggcaag attggtgata tctacgcgca caaaggcgtg  
 180  
 tctcaggtgc gtaaggcaat ggcaatattg gccttggtcg atgaaacact cattgccatg  
 240  
 gacgacgcgc aggacggcga tctggtcttc accaacttcg tggatttcga catgctctac  
 300  
 gggcatcgca gggatgtgcc cggctatgcc gccgcgctcg aggctttcga cggaggcgtg  
 360  
 ccggaagcca tggcgaaatt gcggacgggc gatcttctga tcctgacagc cgatcatggc  
 420  
 tgcgaccgca ccctcaaggg aaccgaccac acgcgt  
 456

&lt;210&gt; 302

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 302

Gly	Arg	Val	Ile	Ala	Arg	Pro	Phe	Val	Gly	Glu	Thr	Arg	Gln	Thr	Phe
1				5				10					15		
Glu	Arg	Thr	Gly	Asn	Arg	Arg	Asp	Tyr	Ser	Val	Pro	Pro	Pro	Glu	Pro
			20				25						30		
Thr	Leu	Leu	Asp	Arg	Leu	Thr	Asp	Ala	Gly	Arg	Thr	Val	Ile	Ala	Ile
		35				40						45			
Gly	Lys	Ile	Gly	Asp	Ile	Tyr	Ala	His	Lys	Gly	Val	Ser	Gln	Val	Arg
	50				55						60				
Lys	Ala	Met	Ala	Ile	Leu	Ala	Leu	Phe	Asp	Glu	Thr	Leu	Ile	Ala	Met
65				70					75					80	
Asp	Asp	Ala	Gln	Asp	Gly	Asp	Leu	Val	Phe	Thr	Asn	Phe	Val	Asp	Phe
			85					90					95		
Asp	Met	Leu	Tyr	Gly	His	Arg	Arg	Asp	Val	Pro	Gly	Tyr	Ala	Ala	Ala
		100					105						110		
Leu	Glu	Ala	Phe	Asp	Arg	Arg	Leu	Pro	Glu	Ala	Met	Ala	Lys	Leu	Arg
		115				120						125			
Thr	Gly	Asp	Leu	Leu	Ile	Leu	Thr	Ala	Asp	His	Gly	Cys	Asp	Pro	Thr
	130				135						140				
Leu	Lys	Gly	Thr	Asp	His	Thr	Arg								
145						150									

&lt;210&gt; 303

&lt;211&gt; 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 303

nncgtgggca tcgaggagtt cctcgacatg aagtatcacg cgacgccgat tcacgtcgcg  
 60

tgacagcggg tttccggaac acatcagcgt tcagacagga gcgaggagac catgtacctg  
 120  
 ggtgctcagc tggtcagtga cagcgagtac gagcagcgcc tgagacgtgt ccgtgagctc  
 180  
 atggaccgtc aggggtctgtc ggcgatcatc gtcaccgatc cggccaacat cttctatctg  
 240  
 atcggttaca acgcctggtc gttctacacc ccgcagatgc tgttcgtgcc gatcgacgga  
 300  
 gagatgggtcc tctacgctcg cgagatggat cgcgatggcg acatcngcac gacgtcgttg  
 360  
 cccgccgatc agatcgtcgg ttaccggag agttatgtgc ac  
 402

<210> 304

<211> 97

<212> PRT

<213> Homo sapiens

<400> 304

Met	Tyr	Leu	Gly	Ala	Gln	Leu	Phe	Ser	Asp	Ser	Glu	Tyr	Glu	Gln	Arg
1				5				10						15	
Leu	Arg	Arg	Val	Arg	Glu	Leu	Met	Asp	Arg	Gln	Gly	Leu	Ser	Ala	Ile
			20					25					30		
Ile	Val	Thr	Asp	Pro	Ala	Asn	Ile	Phe	Tyr	Leu	Ile	Gly	Tyr	Asn	Ala
		35					40					45			
Trp	Ser	Phe	Tyr	Thr	Pro	Gln	Met	Leu	Phe	Val	Pro	Ile	Asp	Gly	Glu
	50					55				60					
Met	Val	Leu	Tyr	Ala	Arg	Glu	Met	Asp	Arg	Met	Ala	His	Ile	Xaa	Thr
65					70					75				80	
Thr	Ser	Leu	Pro	Ala	Asp	Gln	Ile	Val	Gly	Tyr	Pro	Glu	Ser	Tyr	Val
				85				90						95	

His

<210> 305

<211> 375

<212> DNA

<213> Homo sapiens

<400> 305

nnacgcgtcg gttccgcac gagcgaccgg atcgcatcga cgagcacgct gcaccagtgc  
 60  
 gtgtcgtcct ggcgaatatg ggcgatcagc cggtagctt cgggatcgtc gctcacctcg  
 120  
 gccgccattt cggatgcgac acgcgcgcct gcgcgctcgg cctccagcaa ctcgtcgagc  
 180  
 gtcgccacca gcgcggcgcg atcttcatgc ggagtcagat cggcgcgggc gtcaggcccc  
 240  
 tcgccatgcy tcggaatcga catgcagcac cctcctgcca ggatcgatgg cgtaatacgt  
 300  
 gcgacgggtac acggcgcggtg ttgcacgaac gtgcaaata ggcggtgcct cgtgccatat  
 360  
 acgtcacatc atatg  
 375

<210> 306  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 306  
 Xaa Arg Val Gly Ser Ala Ser Ser Asp Arg Ile Ala Ser Thr Ser Thr  
 1 5 10 15  
 Leu His Gln Cys Val Ser Ser Trp Arg Ile Trp Ala Ile Ser Arg Tyr  
 20 25 30  
 Ser Ser Gly Ser Ser Leu Thr Ser Ala Ala Ile Ser Asp Ala Thr Arg  
 35 40 45  
 Ala Pro Ala Arg Ser Ala Ser Ser Asn Ser Ser Ser Val Ala Thr Ser  
 50 55 60  
 Ala Ala Arg Ser Ser Cys Gly Val Arg Ser Ala Arg Ala Ser Gly Pro  
 65 70 75 80  
 Ser Pro Cys Val Gly Ile Asp Met Gln His Pro Pro Ala Arg Ile Asp  
 85 90 95  
 Gly Val Ile Arg Ala Thr Val His Gly Ala Cys Cys Thr Asn Val Gln  
 100 105 110  
 Ile Ser Ala Cys Leu Val Pro Tyr Thr Ser His His Met  
 115 120 125

<210> 307  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 307  
 actagtctctg gccgctcccc tggggctttg ggtaacaatt gtcagcccca cccatcctag  
 60  
 ggtaggaag gctattctct ttggccactc tcatcctaag acctatttgg agaacctctg  
 120  
 gggtttgagt ctttttttca gcagaatgag gcttgatccc gcattatagc acctcgaca  
 180  
 tttgatgtct cttcttctca cccactcacc ccaccctggg ggttggggca aaaaagtggc  
 240  
 tcaaagctgc gggttcagagt tccttgtaaa caaggctcct ccctcactgt cctcaccctg  
 300  
 ctccagcaga gggagcagcg gaaggaccac tctgctgcag ccatgcttgt ttctaaccga  
 360  
 gcagaactgg acataatggg aacaggttct gaagacaatc aatccagggc tgcagtgggt  
 420  
 gctgagtctg gggaagcctc cacctggagg ggcagctggg cagtggcagc tcccttgaa  
 480  
 tggctcagcc tctggacatc accccaccca accagagccc tggctcttgc tggatgtcca  
 540  
 cagatgagtg cctgggattg gtctcagcca ctatgggggg gatgtgcagg gagaggtgat  
 600  
 gagggagtga gcaggactgt ctatgtgcct ctgtcctcat cctgaggctt gggcttgaaa  
 660  
 ttggtgctgc agcactggca cgcgt  
 685

<210> 308  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 308  
 Met Leu Val Ser Asn Pro Ala Glu Leu Asp Ile Met Gly Thr Gly Ser  
 1 5 10 15  
 Glu Asp Asn Gln Ser Arg Ala Ala Val Gly Ala Glu Ser Gly Glu Ala  
 20 25 30  
 Ser Thr Trp Arg Gly Ser Trp Ala Val Ala Ala Pro Leu Glu Trp Leu  
 35 40 45  
 Ser Leu Trp Thr Ser Pro His Pro Thr Arg Ala Leu Ala Leu Ala Gly  
 50 55 60  
 Cys Pro Gln Met Ser Ala Trp Asp Trp Ser Gln Pro Leu Trp Gly Gly  
 65 70 75 80  
 Cys Ala Gly Arg Gly Asp Glu Gly Val Ser Arg Thr Val Tyr Val Pro  
 85 90 95  
 Leu Ser Ser Ser  
 100

<210> 309  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 309  
 caggctcgta ctattcgat ccctgtgcat atggctcgagg tcatcaataa gctggctcgc  
 60  
 gtccagcgtc agatgctcca ggacctaggt cgtgagccca ccccggaaga gcttgccaac  
 120  
 gaactcgata tgaccgcaga gaaggctcatt gaggtgcaga aatacggctcg cgagccgac  
 180  
 tcgctgcata cccactggg tgaggatggc gattctgagt tcggtgacct tattgaggat  
 240  
 tccgaggcca tcgtgccagc agacgccgtc aacttcaccc tgttgcagga gcagctgcat  
 300  
 gatgtcctcg ataccttgct cgagcgagag gccgggtgtcg tgcgatgcg attcggcttg  
 360  
 accgacggac agcccaagac cctggatgag atcggcaaag tctacggtgt tactcgggag  
 420  
 cgcacccgcc ag  
 432

<210> 310  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 310  
 Gln Ala Arg Thr Ile Arg Ile Pro Val His Met Val Glu Val Ile Asn  
 1 5 10 15  
 Lys Leu Ala Arg Val Gln Arg Gln Met Leu Gln Asp Leu Gly Arg Glu

```

      20      25      30
Pro Thr Pro Glu Glu Leu Ala Asn Glu Leu Asp Met Thr Ala Glu Lys
      35      40      45
Val Ile Glu Val Gln Lys Tyr Gly Arg Glu Pro Ile Ser Leu His Thr
      50      55      60
Pro Leu Gly Glu Asp Gly Asp Ser Glu Phe Gly Asp Leu Ile Glu Asp
      65      70      75      80
Ser Glu Ala Ile Val Pro Ala Asp Ala Val Asn Phe Thr Leu Leu Gln
      85      90      95
Glu Gln Leu His Asp Val Leu Asp Thr Leu Ser Glu Arg Glu Ala Gly
      100      105      110
Val Val Ser Met Arg Phe Gly Leu Thr Asp Gly Gln Pro Lys Thr Leu
      115      120      125
Asp Glu Ile Gly Lys Val Tyr Gly Val Thr Arg Glu Arg Ile Arg Gln
      130      135      140

```

<210> 311  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

```

<400> 311
acgcgtatcg aaaatatccc tccattatt accgctcgcc ctgaactgat ggctcatgaa
60
ctgacgccag aatctcttga tgcgagcctg gagtgggccg atgtggtggt cattggtcct
120
ggactgggac aacaagcgtg gggcaaaaaa gcgctacaaa aggtcgagaa ttgtcgtaaa
180
ccgatgctgt gggatgccga cgcgcttaac cttctggcaa tcaatcctga taaacgtcac
240
aatcgcatcc tgacgccaca ccccggcgag gccgcgcggc tgcttagctg cagcgtcgca
300
gaaattgaaa acgatcgctt acttntctgc gcacgtctgg taaaacggta acccgagt
358

```

<210> 312  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 312
Thr Arg Ile Glu Asn Ile Pro Pro Ile Ile Thr Ala Arg Pro Glu Leu
1      5      10      15
Met Ala His Glu Leu Thr Pro Glu Ser Leu Asp Ala Ser Leu Glu Trp
      20      25      30
Ala Asp Val Val Val Ile Gly Pro Gly Leu Gly Gln Gln Ala Trp Gly
      35      40      45
Lys Lys Ala Leu Gln Lys Val Glu Asn Cys Arg Lys Pro Met Leu Trp
      50      55      60
Asp Ala Asp Ala Leu Asn Leu Leu Ala Ile Asn Pro Asp Lys Arg His
      65      70      75      80
Asn Arg Ile Leu Thr Pro His Pro Gly Glu Ala Ala Arg Leu Leu Ser
      85      90      95
Cys Ser Val Ala Glu Ile Glu Asn Asp Arg Leu Leu Xaa Cys Ala Arg

```

100  
Leu Val Lys Arg  
115

105

110

<210> 313  
<211> 347  
<212> DNA  
<213> Homo sapiens

<400> 313  
ncaactgaaa gcattgagat gagcgacgtg ctgtccccct tccacccac caaggccaac  
60  
acccctggtg gcgaaccgcg caccatccgc acctcgaacg cgcacatcat tgccgtcacc  
120  
agtggcaaaag gcggcgtggg caagaccttt gtctccgcca acctggccgc cgcgctgacc  
180  
cgcttgggac tgccgctgct ggtactggac gccgacctgg gcctggccaa cttggacgtg  
240  
gtgctgaacc tctaccccaa ggtgacgtg cagcatgtgt tcaccggcaa ggctcgtgctg  
300  
caagacgcgg tggtcacggc ccccggcggc ttccatgtgc tgctagc  
347

<210> 314  
<211> 115  
<212> PRT  
<213> Homo sapiens

<400> 314  
Xaa Thr Glu Ser Ile Glu Met Ser Asp Val Leu Ser Pro Phe His Pro  
1 5 10 15  
Thr Lys Ala Asn Thr Pro Gly Gly Glu Pro Arg Thr Ile Arg Thr Ser  
20 25 30  
Asn Ala His Ile Ile Ala Val Thr Ser Gly Lys Gly Gly Val Gly Lys  
35 40 45  
Thr Phe Val Ser Ala Asn Leu Ala Ala Leu Thr Arg Leu Gly Leu  
50 55 60  
Arg Val Leu Val Leu Asp Ala Asp Leu Gly Leu Ala Asn Leu Asp Val  
65 70 75 80  
Val Leu Asn Leu Tyr Pro Lys Val Thr Leu His Asp Val Phe Thr Gly  
85 90 95  
Lys Ala Ser Leu Gln Asp Ala Val Val Thr Ala Pro Gly Gly Phe His  
100 105 110  
Val Leu Leu  
115

<210> 315  
<211> 544  
<212> DNA  
<213> Homo sapiens

<400> 315  
nnacgcgttc gtcaacagga aaacaacaac ggcttctcgc tggagggaac catgcttgcc  
60

gaagatatct acgcgatcat gctgttttca tcgctcatcc tggctgtccc ggggccatcc  
 120  
 aacaccttgc tgetcagcgc ccgtttccat ttcggctcgc tgcgggcggc gcccttcac  
 180  
 ctgcttgagg cggtgggcta ctcgctatcc atttcggcat ggggctgggt attggcgcg  
 240  
 ctgtccgaga gcaatccatg gatcatcagt ctgaccaagg cactctgcgc gctatatgtg  
 300  
 gcgcttctgg cgggaagac ctggaatgcc ntcgatccgc agtgcggggc cggttaacttc  
 360  
 cgccatgggc ccctgcccct gttcgtggca accctgtcga acccgaaggc gctgatcttc  
 420  
 gccagcgtga tctttcccg caaggcgttc ctcgacttct ggaacaacta cacgatctcg  
 480  
 ctgctggcct tcctggttgt gctggcgccc atcgggatgc tttgggtcgg gctggggggc  
 540  
 ggta  
 544

<210> 316  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 316  
 Ile Tyr Ala Ile Met Leu Phe Ser Ser Leu Ile Leu Val Val Pro Gly  
 1 5 10 15  
 Pro Ser Asn Thr Leu Leu Leu Ser Ala Arg Phe His Phe Gly Ser Leu  
 20 25 30  
 Arg Ala Ala Pro Phe Ile Leu Leu Glu Ala Leu Gly Tyr Ser Leu Ser  
 35 40 45  
 Ile Ser Ala Trp Gly Trp Val Leu Ala Arg Leu Ser Glu Ser Asn Pro  
 50 55 60  
 Trp Ile Ile Ser Leu Thr Lys Ala Leu Cys Ala Leu Tyr Val Ala Leu  
 65 70 75 80  
 Leu Ala Val Lys Thr Trp Asn Ala Xaa Asp Pro Gln Cys Gly Ala Gly  
 85 90 95  
 Asn Phe Arg His Gly Pro Leu Pro Leu Phe Val Ala Thr Leu Ser Asn  
 100 105 110  
 Pro Lys Ala Leu Ile Phe Ala Ser Val Ile Phe Pro Gly Lys Ala Phe  
 115 120 125  
 Leu Asp Phe Trp Asn Asn Tyr Thr Ile Ser Leu Leu Ala Phe Leu Val  
 130 135 140  
 Val Leu Ala Pro Ile Gly Met Leu Trp Val Gly Leu Gly Ala Gly  
 145 150 155

<210> 317  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

<400> 317  
 nggtcagcct ctcgcccagg caattctctt aagatacatg agctgctatg agtaccaaag  
 60

ccagagggttt gtccactgag agaagcacat tggaaagggg ggcgtgggcc tgggactgtg  
120  
tggcacttta tgcacggggg gggcctaagg gggnggtcc accaaccatg cactgngggg  
180  
ggggtgtggg taacatgccg tgcattttgg ggggtgtgcca tgagtggcac accatggggg  
240  
tggcatgtgg ggcatttatg catgtggtgt tggcgcagca aactcagctc ttacctggct  
300  
ggggccagcc tctaaaactt ctcacattgg gctcccttct gac  
343

<210> 318

<211> 98

<212> PRT

<213> Homo sapiens

<400> 318

Met	Ser	Thr	Lys	Ala	Arg	Gly	Leu	Ser	Thr	Glu	Arg	Ser	Thr	Leu	Glu
1				5				10						15	
Arg	Gly	Ala	Trp	Ala	Trp	Asp	Cys	Val	Ala	Leu	Tyr	Ala	Arg	Gly	Gly
		20					25					30			
Pro	Lys	Gly	Gly	Gly	Pro	Pro	Thr	Met	His	Xaa	Gly	Trp	Gly	Val	Gly
		35					40					45			
Asn	Met	Pro	Cys	Ile	Leu	Gly	Val	Cys	His	Glu	Trp	His	Thr	Met	Gly
	50					55				60					
Val	Ala	Cys	Gly	Ala	Cys	Met	His	Val	Val	Leu	Ala	Gln	Gln	Thr	Gln
65				70						75				80	
Leu	Leu	Pro	Gly	Trp	Gly	Gln	Pro	Leu	Lys	Leu	Leu	Thr	Leu	Gly	Ser
			85					90						95	
Leu	Leu														

<210> 319

<211> 429

<212> DNA

<213> Homo sapiens

<400> 319

gaattctcga tgtaccccct cccggcagtc ctattctcga gctgagcggg cacagtggcc  
60  
ccgttaacag tgtggcttgg ggtccacca gccagagcac gttgcgaaat ggacctagta  
120  
agggcatgat atgtacagga ggcgacgatg ctcatgacct cgtatatgat ctgactagct  
180  
caactcttcg aacagcatct gctcaaggac ggcgtctctg aaacagtcca tataaataaa  
240  
gccattcacc gggaatagac ggatggcgtg tcggcgcaga agtgccggtg ctgcgttata  
300  
cggccccgtc tatgggtcaac aatgctagct ggctcggcat gcctgcgcca tcaaaacgca  
360  
catcgctaca gagcaaacac cgcagccttt accgcagctt actcagttag tggactgagt  
420  
atacgtcn  
429



<210> 320  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 320  
 Met Ile Cys Thr Gly Gly Asp Asp Ala Gln Cys Leu Val Tyr Asp Leu  
 1 5 10 15  
 Thr Ser Ser Thr Leu Arg Thr Ala Ser Ala Gln Gly Arg Arg Ser Arg  
 20 25 30  
 Asn Ser Pro Tyr Lys Gln Ser His Ser Pro Gly Ile Asp Gly Trp Arg  
 35 40 45  
 Val Gly Ala Glu Val Pro Val Leu Ala Tyr Thr Ala Pro Ser Met Val  
 50 55 60  
 Asn Asn Ala Ser Trp Leu Gly Met Pro Ala Pro Ser Lys Arg Thr Ser  
 65 70 75 80  
 Leu Gln Ser Lys His Arg Ser Leu Tyr Arg Ser Leu Leu Ser Glu Trp  
 85 90 95  
 Thr Glu Tyr Thr Ser  
 100

<210> 321  
 <211> 530  
 <212> DNA  
 <213> Homo sapiens

<400> 321  
 ngtgcacgac gtgctcgcca agtccctcgg gtcctctaata gcgatcaacg tgggttcacgc  
 60  
 caccgtcgat gcgttgacgc agctcgagga gcccggaagag gtcgcccgtc gccgcggcaa  
 120  
 gtccgttgag gagatcgccc cagcagccat gctgcgtgcg cgcaaggagg ccgacgaggc  
 180  
 cgccgctgct gcccgcatgg aggaaaaggc ggggggtaac tgatgagcaa gctgaagatc  
 240  
 acccagatca agtctggcat cgctaccaag ccaaatcatc gtgagaccct gcgcagcctc  
 300  
 ggactgaagc gtattggtga cagggtcatc aaggaggacc gcccgagatt ccgcgggcatg  
 360  
 gtccggaccg ttcgtcacct cgtcaccatg gaagaggtgg actgacatgg ctattgagct  
 420  
 ccatgacctc aagcccgctc ctgggtgccc caaggccaag acccggttg gtcgtggtga  
 480  
 ggggttccaag ggtaagaccg ctgggtcgcg taccaagggc accggtgcac  
 530

<210> 322  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 322  
 Met Ser Lys Leu Lys Ile Thr Gln Ile Lys Ser Gly Ile Ala Thr Lys

1                      5                      10                      15  
 Pro Asn His Arg Glu Thr Leu Arg Ser Leu Gly Leu Lys Arg Ile Gly  
                          20                      25                      30  
 Asp Thr Val Ile Lys Glu Asp Arg Pro Glu Phe Arg Gly Met Val Arg  
                          35                      40                      45  
 Thr Val Arg His Leu Val Thr Met Glu Glu Val Asp  
                          50                      55                      60

&lt;210&gt; 323

&lt;211&gt; 468

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 323

ntccggaccc gctgtggcca cgtattctgc cgttcctgta ttgctaccag tctaaagaac  
 60  
 aacaagtgga cctgtcctta ttgccgggca tatcttcctt cagaaggagt tccagcaact  
 120  
 gatgtagcca aaagaatgaa atcagagtat aagaactgcg ctgagtgtga caccctgggt  
 180  
 tgcctcagtg aaatgagggc acatattcgg acttgtcaga agtacataga taagtatgga  
 240  
 ccactacaag aacttgagga gacagcagca aggtgtgtat gtcccttttg tcagagggaa  
 300  
 ctgtatgaag acagcttgct ggatcattgt attactcatc acagatcgga acggaggcct  
 360  
 gtgttctgtc cactttgcca ttttaataccc gatgagaatc caagcagctt cagtggcagt  
 420  
 ttaataagac atctgcaagt tagtcacact ttggtttatg atgatttc  
 468

&lt;210&gt; 324

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 324

Xaa Arg Thr Arg Cys Gly His Val Phe Cys Arg Ser Cys Ile Ala Thr  
 1                      5                      10                      15  
 Ser Leu Lys Asn Asn Lys Trp Thr Cys Pro Tyr Cys Arg Ala Tyr Leu  
                          20                      25                      30  
 Pro Ser Glu Gly Val Pro Ala Thr Asp Val Ala Lys Arg Met Lys Ser  
                          35                      40                      45  
 Glu Tyr Lys Asn Cys Ala Glu Cys Asp Thr Leu Val Cys Leu Ser Glu  
                          50                      55                      60  
 Met Arg Ala His Ile Arg Thr Cys Gln Lys Tyr Ile Asp Lys Tyr Gly  
 65                      70                      75                      80  
 Pro Leu Gln Glu Leu Glu Glu Thr Ala Ala Arg Cys Val Cys Pro Phe  
                          85                      90                      95  
 Cys Gln Arg Glu Leu Tyr Glu Asp Ser Leu Leu Asp His Cys Ile Thr  
                          100                      105                      110  
 His His Arg Ser Glu Arg Arg Pro Val Phe Cys Pro Leu Cys His Leu  
                          115                      120                      125  
 Ile Pro Asp Glu Asn Pro Ser Ser Phe Ser Gly Ser Leu Ile Arg His

130 135 140  
 Leu Gln Val Ser His Thr Leu Val Tyr Asp Asp Phe  
 145 150 155

<210> 325  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 325  
 acgcgtgaag ggaggacgag gaagtaacgg gaagcacaag gccgctgctg gggagatggc  
 60  
 actggagccc cctaggaagc atctcacagg ctgtggccct tggcacgggg atctggggcc  
 120  
 aggtcgagcg caggtctggg tatcatgcga gtgcgggctc gctggggcgg gaaagagttt  
 180  
 ggagctctgc tcccaggga tccccactcc cgcagatgac ttgcccgaga gagttctgct  
 240  
 ggtggatttt gatggaaatt ctatttgatc gcacccactt ggttcactgt gtgcttccgg  
 300  
 gtccccaggt tttaggtgct tcatgccctg ctgggaacga gacacgctcc tgcctcagt  
 360  
 gaatcttcag tcta  
 374

<210> 326  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 326  
 Met Lys His Leu Lys Pro Gly Asp Pro Glu Ala His Ser Glu Pro Ser  
 1 5 10 15  
 Gly Cys Asp Gln Ile Glu Phe Pro Ser Lys Ser Thr Ser Arg Thr Leu  
 20 25 30  
 Ser Gly Lys Ser Ser Ala Gly Val Gly Ile Pro Trp Glu Gln Ser Ser  
 35 40 45  
 Lys Leu Phe Pro Ala Pro Ala Ser Pro His Ser His Asp Thr Gln Thr  
 50 55 60  
 Cys Ala Arg Pro Gly Pro Arg Ser Pro Cys Gln Gly Pro Gln Pro Val  
 65 70 75 80  
 Arg Cys Phe Leu Gly Gly Ser Ser Ala Ile Ser Pro Ala Ala Ala Leu  
 85 90 95  
 Cys Phe Pro Leu Leu Pro Arg Pro Pro Phe Thr Arg  
 100 105

<210> 327  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 327  
 cactataaaa tccagtttgg ggcccgtgtt ctttctatt ggtctgtcag gtgaaaaact  
 60

ccggctgggg gaaaagcgtc cgggtggttg ttggtaaaga gggcgctga tgggctctgg  
120  
ggaatggagg atggcgacc ggctgtgggt ggactgtgga aacggggggg ggcagtgccg  
180  
gggtagtgtt cctgctggtc tggttttggg atcctgggct ggagaaatgc gatccaaaag  
240  
agctcgggat gggctcagag cgaccacga aaataccagg ggccaagtaa aatgaaccca  
300  
ccctttaaca gtgcacaaag cgctggcaca cgggtccacgt ctggtgacgc aggctgcccg  
360  
aagcgctcca accattttgc aaacctggga gagcaagagg ggctctgcag gtctagccgc  
420  
cgccccctgc cactctggc cagccggagt ttttcaccta cagaccaata ggaaagaaca  
480  
cgggccccaa actggatttt atagtctgag ctctcagcat ctaaggaatg atatgccc  
538

&lt;210&gt; 328

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 328

Met Val Gly Ala Leu Arg Ala Ala Cys Val Thr Arg Arg Gly Pro Cys  
1 5 10 15  
Ala Ser Ala Leu Cys Thr Val Lys Gly Trp Val His Phe Thr Trp Pro  
20 25 30  
Leu Val Phe Ser Trp Val Ala Leu Ser Pro Ser Arg Ala Leu Leu Asp  
35 40 45  
Arg Ile Ser Pro Ala Gln Asp Pro Lys Thr Arg Pro Ala Gly Gln Leu  
50 55 60  
Pro Arg His Cys His Pro Pro Phe Pro Gln Ser Thr His Ser Arg Cys  
65 70 75 80  
Ala Ile Leu His Ser Pro Glu Pro Ile Thr His Pro Leu Tyr Gln Gln  
85 90 95  
Thr Thr Gly Arg Phe Ser Pro Ser Arg Ser Phe Ser Pro Asp Arg Pro  
100 105 110  
Ile Gly Lys Asn Thr Gly Pro Lys Leu Asp Phe Ile Val  
115 120 125

&lt;210&gt; 329

&lt;211&gt; 407

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 329

tccggagagt tccctcccca ggaattcctt ctaagaatcc atgtggaaat agagcctgaa  
60  
gtctttcagt ctttctgctc cactgagcag tgttttcttg atacccttgg tatcctgcca  
120  
gcagcctcgt tatgactcct aactccattg cctccatgg cccctgggag ctctctctct  
180  
ctttctctcc aggtagtaga gcactgcttc tggcttcttg tgcacagaag ggtttccac  
240

agctgagagc tgggctccta ctgacatagt tatttctctt atatcctgcc ccaccttctt  
 300  
 ctggttagcac acagcaacct tgcatagttag ctggtatcat taccttccca atcaacaggc  
 360  
 cttgatttct tataggactt tttctctcag atttacattg cttcttt  
 407

<210> 330

<211> 113

<212> PRT

<213> Homo sapiens

<400> 330

Met	Ile	Pro	Ala	Thr	Met	Gln	Gly	Cys	Cys	Val	Leu	Pro	Glu	Glu	Gly
1				5					10					15	
Gly	Ala	Gly	Tyr	Lys	Gly	Asn	Asn	Tyr	Val	Ser	Arg	Ser	Pro	Ala	Leu
		20					25					30			
Ser	Cys	Gly	Lys	Pro	Phe	Cys	Ala	Gln	Glu	Ala	Arg	Ser	Ser	Ala	Leu
	35					40					45				
Leu	Pro	Gly	Glu	Lys	Glu	Arg	Glu	Ser	Ala	Gln	Gly	Pro	Trp	Arg	Ala
	50					55					60				
Met	Glu	Leu	Gly	Val	Ile	Thr	Arg	Leu	Leu	Ala	Gly	Tyr	Gln	Gly	Tyr
65				70						75				80	
Gln	Glu	Asn	Thr	Ala	Gln	Trp	Ser	Arg	Lys	Thr	Glu	Glu	Leu	Gln	Ala
			85					90						95	
Leu	Phe	Pro	His	Gly	Phe	Leu	Glu	Gly	Ile	Pro	Gly	Glu	Gly	Thr	Leu
			100					105						110	

Arg

<210> 331

<211> 523

<212> DNA

<213> Homo sapiens

<400> 331

tgtaccgaac ctgctggtct cgagggcctt gctgggctcg tcgtacgcac agctgacgaa  
 60  
 tccaccggcc cccatcccgg cgccactttc gctgaggcca tggagtcgat cggagccagc  
 120  
 tacgacggat cggccggggt ggccggaagt cacgtcggcg tcgatgtgcc cgtgacaagg  
 180  
 ttcgacgcag cggctgaact cttcgtcgaa ttgttgaaca ccacgagcct ggttgaagag  
 240  
 gacatgccc gtcagatcga cgcggcgcca gcctccctgg cccagaccag ccagcgcgga  
 300  
 tcggccctag ccgagatggc agcagcacgt gcgctatggc cagtgggggtc acggtcgtcc  
 360  
 ctgcccacga tcggtaccct ctcgtcgggtg gaaaagctca acgccgcagc cgcacgagaa  
 420  
 ttctgggccc cgcactggac gatctccgat gccgtgctgg tggttgccgg agagggagtc  
 480  
 gaggacctcg acttgtaaat attcaaggag tggacgacca gct  
 523

<210> 332  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 332  
 Cys Thr Glu Pro Ala Gly Leu Glu Gly Leu Ala Gly Leu Val Val Arg  
 1 5 10 15  
 Thr Ala Asp Glu Ser Thr Gly Pro His Pro Gly Ala Thr Phe Ala Glu  
 20 25 30  
 Ala Met Glu Ser Ile Gly Ala Ser Tyr Asp Gly Ser Ala Gly Leu Ala  
 35 40 45  
 Gly Ser His Val Gly Val Asp Val Pro Val Thr Arg Phe Asp Ala Ala  
 50 55 60  
 Ala Glu Leu Phe Val Glu Leu Leu Asn Thr Thr Ser Leu Val Glu Glu  
 65 70 75 80  
 Asp Ile Ala Arg Gln Ile Asp Ala Ala Arg Ala Ser Leu Ala Gln Thr  
 85 90 95  
 Ser Gln Arg Gly Ser Ala Leu Ala Glu Met Ala Ala Ala Arg Ala Leu  
 100 105 110  
 Trp Pro Val Gly Ser Arg Ser Ser Leu Pro Thr Ile Gly Thr Leu Ser  
 115 120 125  
 Ser Val Glu Lys Leu Asn Ala Ala Ala Arg Glu Phe Trp Ala Ala  
 130 135 140  
 His Trp Thr Ile Ser Asp Ala Val Leu Val Val Ala Gly Glu Gly Val  
 145 150 155 160  
 Glu Asp Leu Asp Leu Ser Ile Phe Lys Glu Trp Thr Thr Ser  
 165 170

<210> 333  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 333  
 nntgttcgtc gtgtcgaccc ggaactcaag gcccgagcga tgacgggtgaa ggtgccaacc  
 60  
 gatccccatc accgcccggg agttccattg aagtctgcga aggaccgtat ggacatcatt  
 120  
 tctgcttacc gagaactcgg aagctatcgc gccgcagccg aggtgtgcgg caccacccac  
 180  
 aagaccgtca agcgggtggt cgatcggttt gaagccggcg atccacccac cggtggaag  
 240  
 gaacgggccc gcaactacga tgcggtggcc cagctcgtcg cgcagcgagt cgcgcggtca  
 300  
 cacggccgga tcaactgcaa acggctgcta ccggtagcgc gagcggcagg atatgagggg  
 360  
 tcggcgcgga at  
 372

<210> 334  
 <211> 88  
 <212> PRT

<213> Homo sapiens

<400> 334

```

Met Asp Ile Ile Ser Ala Tyr Arg Glu Leu Gly Ser Tyr Arg Ala Ala
 1             5             10             15
Ala Glu Val Cys Gly Thr Thr His Lys Thr Val Lys Arg Val Val Asp
      20             25             30
Arg Phe Glu Ala Gly Asp Pro Pro Thr Gly Gly Lys Glu Arg Ala Arg
      35             40             45
Asn Tyr Asp Ala Val Ala Gln Leu Val Ala Gln Arg Val Ala Arg Ser
      50             55             60
His Gly Arg Ile Thr Ala Lys Arg Leu Leu Pro Val Ala Arg Ala Ala
      65             70             75             80
Gly Tyr Glu Gly Ser Ala Arg Asn
                        85

```

<210> 335

<211> 356

<212> DNA

<213> Homo sapiens

<400> 335

```

gtgcacgcct tgctgggcca gggcgatgcg cctgcgcgca ccttcgtgga cggtaaccttt
60
ggcaggggag ggcattcgcg gctcatcctg cagcggttgg ggccgcaagg ccgcctgggtg
120
gcgttcgaca aggacaccga agccattcaa gcagcggcgc gcatcacgga tgcgcgcttt
180
tccatcnggc accagggggt cagccatctc ggggaactgc ccgccgccag cgtgtccggt
240
gtgctgctgg acctgggcgt gagctccccg cagatcgacg acccccagcg cgggttcagt
300
tttcgtttcg atggtcgcgt ggacatgcgc atggacacca ctccgatgca tggatg
356

```

<210> 336

<211> 118

<212> PRT

<213> Homo sapiens

<400> 336

```

Val His Ala Leu Leu Gly Glu Gly Asp Ala Pro Ala Arg Thr Phe Val
 1             5             10             15
Asp Gly Thr Phe Gly Arg Gly Gly His Ser Arg Leu Ile Leu Gln Arg
      20             25             30
Leu Gly Pro Gln Gly Arg Leu Val Ala Phe Asp Lys Asp Thr Glu Ala
      35             40             45
Ile Gln Ala Ala Ala Arg Ile Thr Asp Ala Arg Phe Ser Ile Xaa His
      50             55             60
Gln Gly Phe Ser His Leu Gly Glu Leu Pro Ala Ala Ser Val Ser Gly
      65             70             75             80
Val Leu Leu Asp Leu Gly Val Ser Ser Pro Gln Ile Asp Asp Pro Gln
      85             90             95
Arg Gly Phe Ser Phe Arg Phe Asp Gly Pro Leu Asp Met Arg Met Asp

```

100  
Thr Thr Pro Met His Gly  
115

105

110

<210> 337  
<211> 447  
<212> DNA  
<213> Homo sapiens

<400> 337  
cagcctctct ccgaccgcgc cgggtgtgaag cacgggcatg ccgggtgtgca agtggcacca  
60  
cagccaaaac agcgagctca cacttcaaac tccttcaaag accccaggcc tctgtaagaa  
120  
ccgctcatct ctgtgccac agctcccccg ctcccatgtg acccagaaat ggaaccacgc  
180  
agcagaggcg gggatcacag gtgaagcagc tgtgaacatt tgcttcaggc ttctgtgcaa  
240  
acaggcgcca tcatgtcagc cggtgagcag gagcaacgtg cgtgggtcag ggggtggcca  
300  
cacgtccaac ttataagaa atgacagatt ccctgatggc catagggatc tgcagggcca  
360  
gcagcaggca taggacttcc ggtggccctg cgtcttcac aacactgagt attgtcaggg  
420  
tttctgtact gtttttacag ccaattg  
447

<210> 338  
<211> 111  
<212> PRT  
<213> Homo sapiens

<400> 338  
Met Pro Val Cys Lys Trp His His Ser Gln Asn Ser Glu Leu Thr Leu  
1 5 10 15  
Gln Thr Pro Ser Lys Thr Pro Gly Leu Cys Lys Asn Arg Ser Ser Leu  
20 25 30  
Cys Pro Gln Leu Pro Arg Phe His Val Thr Gln Lys Trp Asn His Ala  
35 40 45  
Ala Glu Ala Gly Ile Thr Gly Glu Ala Ala Val Asn Ile Cys Phe Arg  
50 55 60  
Leu Leu Cys Lys Gln Ala Pro Ser Cys Gln Pro Val Ser Arg Ser Asn  
65 70 75 80  
Val Arg Gly Ser Gly Gly Gly His Thr Ser Asn Phe Ile Arg Asn Asp  
85 90 95  
Arg Phe Pro Asp Gly His Arg Asp Leu Gln Gly Gln Gln Ala  
100 105 110

<210> 339  
<211> 588  
<212> DNA  
<213> Homo sapiens

<400> 339



tctagaatga agcgctgtat cctagcaccg gcagacgtac caagactatc aagggcgctca  
60  
gatcgtttat cctgcagttg ccattcatca gacaaatcca gtggaaccca atggaagaca  
120  
ccgacctgca agcgctgatg gccagactcg aattgctaata tgatcgggtc gagcaactta  
180  
agagtcaaaa cggactccta ttagctcagg aaaagacctg ggcgcganaa cgcgctcacc  
240  
tcattgaaaa aaacgaaatc gcccggcgta aggtcgaatc gatgatttcg cgcctgaagg  
300  
ccctggagca agactatgag ttaagcaata gcgttacgtg cagatcctcg acaaagaata  
360  
ttcgatcatc tgcccccagg aagaacgcag cacctggtga gtgctgcccg ctacctggaa  
420  
ggccaaaagg cgtgaaatcc gcagcagcgg caaagtcacg ggtgccgacc gcatcgccgt  
480  
gatggccgcg ctgaacatca cccacgatct gctgcataag caggaacggc ctgacgttca  
540  
ggccagcggc tcaacgcgcg agcaagtgcg tgacctgctg gaacgcgt  
588

<210> 340

<211> 123

<212> PRT

<213> Homo sapiens

<400> 340

Met	Glu	Asp	Thr	Asp	Leu	Gln	Ala	Leu	Met	Ala	Arg	Leu	Glu	Leu	Leu
1				5				10					15		
Ile	Asp	Arg	Val	Glu	Gln	Leu	Lys	Ser	Gln	Asn	Gly	Leu	Leu	Leu	Ala
			20				25					30			
Gln	Glu	Lys	Thr	Trp	Ala	Arg	Xaa	Arg	Ala	His	Leu	Ile	Glu	Lys	Asn
		35				40				45					
Glu	Ile	Ala	Arg	Arg	Lys	Val	Glu	Ser	Met	Ile	Ser	Arg	Leu	Lys	Ala
	50				55					60					
Leu	Glu	Gln	Asp	Tyr	Glu	Leu	Ser	Asn	Ser	Val	Thr	Cys	Arg	Ser	Ser
65			70					75					80		
Thr	Lys	Asn	Ile	Arg	Ser	Ser	Ala	Pro	Arg	Lys	Asn	Ala	Ala	Pro	Gly
			85				90					95			
Glu	Cys	Cys	Pro	Leu	Pro	Gly	Arg	Pro	Lys	Gly	Val	Lys	Ser	Ala	Ala
			100				105					110			
Ala	Ala	Lys	Ser	Ser	Val	Pro	Thr	Ala	Ser	Pro					
			115				120								

<210> 341

<211> 401

<212> DNA

<213> Homo sapiens

<400> 341

ngccgcgcgg cctacctgct gtacctggcc tatgccacct ggcgtagaccg ctcggccttt  
60  
gcaatgaacg acacgccgac agttgcgacc gcgcgcagcc tgatcctgcg tggcttcttg  
120

ctgaacattc ttaaccccaa gctgacaatt ttcttcttg ccttcttgcc tcaattcgta  
 180  
 acgccaggcg gcaccgcgcc ggccttgag atgctgttac tgagcggcgt gttcatggcg  
 240  
 atgacgcttg cagtgtttgt gctgtatggc ctgttgccga atgtgtttcg tcgtgcagtg  
 300  
 gtcgagtcgc cacgtgtgca gaactggctg cgacgcagtt ttgccacggc ctttgccggg  
 360  
 ctgggggttg acctggcggt tgcgcagcgc tgaggacgcg t  
 401

<210> 342

<211> 130

<212> PRT

<213> Homo sapiens

<400> 342

Xaa	Arg	Ala	Ala	Tyr	Leu	Leu	Tyr	Leu	Ala	Tyr	Ala	Thr	Trp	Arg	Asp
1				5					10					15	
Arg	Ser	Ala	Phe	Ala	Met	Asn	Asp	Thr	Pro	Thr	Val	Ala	Thr	Ala	Arg
		20						25					30		
Ser	Leu	Ile	Leu	Arg	Gly	Phe	Leu	Leu	Asn	Ile	Leu	Asn	Pro	Lys	Leu
	35						40					45			
Thr	Ile	Phe	Phe	Leu	Ala	Phe	Leu	Pro	Gln	Phe	Val	Thr	Pro	Gly	Gly
	50					55					60				
Thr	Ala	Pro	Ala	Leu	Gln	Met	Leu	Val	Leu	Ser	Gly	Val	Phe	Met	Ala
65				70					75					80	
Met	Thr	Leu	Ala	Val	Phe	Val	Leu	Tyr	Gly	Leu	Leu	Ala	Asn	Val	Phe
			85					90					95		
Arg	Arg	Ala	Val	Val	Glu	Ser	Pro	Arg	Val	Gln	Asn	Trp	Leu	Arg	Arg
		100						105					110		
Ser	Phe	Ala	Thr	Ala	Phe	Ala	Gly	Leu	Gly	Leu	Asn	Leu	Ala	Phe	Ala
	115						120						125		
Gln	Arg														
	130														

<210> 343

<211> 389

<212> DNA

<213> Homo sapiens

<400> 343

gtgttgcgca actacatggc gtccctgccc ttcagcgtgg tcgagtcggc gcgcacgcac  
 60  
 ggggtgctcca acttccagat cttctggaag ctgacgcgcc cgatggcgat gccggcgatg  
 120  
 gcggcggttcg cgaccctgca gttcctgtgg gtgtggaacg acctgctcat cgccaagctc  
 180  
 ttcttcacca acgacaaccc cacgggtgatc gtcaagctcc aacagctttc cnnngggcccc  
 240  
 aaggcccagg gtgcggagct gctgacggcg ggcgccttca tctccatcgt gctacccatg  
 300  
 atcgtcttct tcgtgctcca gaacttctg gtgcgcggta tgacgtcggg tgccgtcaag  
 360

gggtgaccgc tcaactgcag tggcccggg  
389

<210> 344  
<211> 121  
<212> PRT  
<213> Homo sapiens

<400> 344  
Val Leu Arg Asn Tyr Met Ala Ser Leu Pro Phe Ser Val Val Glu Ser  
1 5 10 15  
Ala Arg Ile Asp Gly Cys Ser Asn Phe Gln Ile Phe Trp Lys Leu Ile  
20 25 30  
Ala Pro Met Ala Met Pro Ala Met Ala Ala Phe Ala Thr Leu Gln Phe  
35 40 45  
Leu Trp Val Trp Asn Asp Leu Leu Ile Ala Lys Leu Phe Leu Thr Asn  
50 55 60  
Asp Asn Pro Thr Val Ile Val Lys Leu Gln Gln Leu Ser Xaa Gly Pro  
65 70 75 80  
Lys Ala Gln Gly Ala Glu Leu Leu Thr Ala Gly Ala Phe Ile Ser Ile  
85 90 95  
Val Leu Pro Met Ile Val Phe Phe Val Leu Gln Asn Phe Leu Val Arg  
100 105 110  
Gly Met Thr Ser Gly Ala Val Lys Gly  
115 120

<210> 345  
<211> 360  
<212> DNA  
<213> Homo sapiens

<400> 345  
ctagtacttt atgctgatgg tgaacgtcgt tacatccttg cccctaaagg catggttgct  
60  
ggtgatgtga tccaatctgg tgaagatgca tcaattaaag taggtaactg cttaccgatg  
120  
cgtaatatcc cagttggtac aacagtacac gctgtagaaa tgaaacctgc taaaggtgca  
180  
caaattgcac gttctgctgg ttcttacagc caaattatag ctctgatgg tgcttacggt  
240  
actctacggt tacgtagtgg tgaaatgcgt aaaatccctg ctgagtgtcg tgcaacaatc  
300  
ggtgaagttg gtaatgcaga acatattgcta cgtcaactag gtaaagctgg tgctacgcgt  
360

<210> 346  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 346  
Leu Val Leu Tyr Ala Asp Gly Glu Arg Arg Tyr Ile Leu Ala Pro Lys  
1 5 10 15  
Gly Met Val Ala Gly Asp Val Ile Gln Ser Gly Glu Asp Ala Ser Ile

```

      20      25      30
Lys Val Gly Asn Cys Leu Pro Met Arg Asn Ile Pro Val Gly Thr Thr
      35      40      45
Val His Ala Val Glu Met Lys Pro Ala Lys Gly Ala Gln Ile Ala Arg
      50      55      60
Ser Ala Gly Ser Tyr Ser Gln Ile Ile Ala Arg Asp Gly Ala Tyr Val
      65      70      75      80
Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Ile Pro Ala Glu Cys
      85      90      95
Arg Ala Thr Ile Gly Glu Val Gly Asn Ala Glu His Met Leu Arg Gln
      100      105      110
Leu Gly Lys Ala Gly Ala Thr Arg
      115      120

```

<210> 347  
 <211> 565  
 <212> DNA  
 <213> Homo sapiens

```

<400> 347
accgggtgatg ccaaagggtgc tgtgacaagg ggattcatcg gttcgggcaa ggtcgtcacg
60
gcagctgccg tcatcatgat ttcggtgttc gtcttcttca tccccgaggg catgaacgcc
120
atcaaggaaa tcgccctggc cctggccgtc gggatcctca cggatgcctt cttggtgcgg
180
atgaccctcg tcccgccgct gatggccctg ctaggtgaca aggcattggtg gttgcccggg
240
tggtcggatc gacgcctacc ccgcctcgac atcgagggag aagggatcac ccacgaggaa
300
aagctggccg cctggcccac agcggatcac accgaggccc tgcacgccga ggggatcggg
360
gtggaggggc tcttcgaagg cctcgatctg cacgtcgaac cgcgtcaggt gcaagccgtc
420
gtcggatcgc agaacagtgt ctcggccgtc ctgctggcga tcgggggacg gctgcccttg
480
gatcacggcc ggatgaggtc gggaggattg ctgctaccgc agcgggcttc cagagtgcgt
540
cgggtgacgt ggttcctcga cgcgt
565

```

<210> 348  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

```

<400> 348
Thr Gly Asp Ala Lys Gly Ala Val Thr Arg Gly Phe Ile Gly Ser Gly
1      5      10      15
Lys Val Val Thr Ala Ala Ala Val Ile Met Ile Ser Val Phe Val Phe
20      25      30
Phe Ile Pro Glu Gly Met Asn Ala Ile Lys Glu Ile Ala Leu Ala Leu
35      40      45
Ala Val Gly Ile Leu Thr Asp Ala Phe Leu Val Arg Met Thr Leu Val

```

```

      50              55              60
Pro Ala Val Met Ala Leu Leu Gly Asp Lys Ala Trp Trp Leu Pro Gly
65              70              75              80
Trp Leu Asp Arg Arg Leu Pro Arg Leu Asp Ile Glu Gly Glu Gly Ile
      85              90              95
Thr His Glu Glu Lys Leu Ala Ala Trp Pro Thr Ala Asp His Thr Glu
      100              105              110
Ala Leu His Ala Glu Gly Ile Gly Val Glu Gly Leu Phe Glu Gly Leu
      115              120              125
Asp Leu His Val Glu Pro Arg Gln Val Gln Ala Val Val Gly Ser Gln
      130              135              140
Asn Ser Val Ser Ala Val Leu Leu Ala Ile Gly Gly Arg Leu Pro Leu
      145              150              155              160
Asp His Gly Arg Met Arg Ser Gly Gly Leu Leu Leu Pro Glu Arg Ala
      165              170              175
Ser Arg Val Arg Arg Val Thr Trp Phe Leu Asp Ala
      180              185

```

&lt;210&gt; 349

&lt;211&gt; 339

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 349

```

ntgctggcca cggataatga ccgtactctg cgtgatgtcg ttgccgctga ccctacccat
60
gagctcggtt cggctaccgc tcatacgttt gcggaacaatt tgccgttcct tcttaaactg
120
ctcgcggcag aagagccact atcgttgcag gctcatccca gtttggcgca agcacaggaa
180
gggtacgggc gggagaatcg caaaggggtg ccattagatg cccagaccg gaattaccac
240
gatcccaacc ataaaccgga gcttattgtt gggctgacgc gattccacgc actagccggc
300
ttcctgaac cacaacgcac acttgagctt tttgacgcg
339

```

&lt;210&gt; 350

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 350

```

Xaa Leu Ala Thr Asp Asn Asp Arg Thr Leu Arg Asp Val Val Ala Ala
1              5              10              15
Asp Pro Thr His Glu Leu Gly Ser Ala Thr Ala His Thr Phe Ala Asp
      20              25              30
Asn Leu Pro Phe Leu Leu Lys Leu Leu Ala Ala Glu Glu Pro Leu Ser
      35              40              45
Leu Gln Ala His Pro Ser Leu Ala Gln Ala Gln Glu Gly Tyr Gly Arg
      50              55              60
Glu Asn Arg Lys Gly Val Pro Leu Asp Ala Pro Asp Arg Asn Tyr His
65              70              75              80
Asp Pro Asn His Lys Pro Glu Leu Ile Val Gly Leu Thr Arg Phe His

```

<400> 353

nntcatgaag gcttgaactt gcgtgatctt cagcctgcgg acctggcggg tgacggcggt  
60  
attgagccgg tggacctcgt ggtcggagat gtctctttta tctccttgac gatgatecct  
120  
gaacccattt cagctgttgt cagccacac ggccctcatgc tgttgctggt gaagcctcaa  
180  
tttgagggtg gttgcaaggc tttgggagcc catggcggtg tcacggaccc ggccctgcgc  
240  
ttgcaggcca tcgcgggtgt catggcagca gcggttagatt tgggttggcg tatgcgtgac  
300  
gagtgcgata gcccgttgcc cgggcaggat ggaaacgttg agcacttcgt cttgctggaa  
360  
cgtacgggtc ggtgacagac gtccgggcat atcatgggcc gctactgtgg tcttgtgaac  
420  
gacacgagcc cttcgagata cgttgctgtc gtcacccatg ccacgcggga cgacgctttt  
480  
gacgcggctg ccgaattcat ctctgaaatg gcggggcgag acattggttg cgcggttccg  
540  
gatgatcagg tgaagccgat gtcaagcaag ctgccaggga tcgatcttga aagcttggga  
600  
gagttcgccc acgaggcgga ggtggtcgtc gtctttggcg gcgacggcac gatcttgca  
660  
gctgctgaat ggtcattacc tcgccacgtt cccatgattg gcgtcaacct tggccatgtc  
720  
ggttttcttg ctgagctgga gcgtccgat atggcggtac tagtgaacaa ggtgtgttcg  
780  
cgcgactaca ccgttgagga tcgcctcgtg cttaaaacca ccgtcaccga gcattccgga  
840  
caacaccgtt ggagttcttt tgccgtcaac gagttgtctc tggaaaaggc agcccggcgg  
900  
cgcatgctcg acgttctggc gtctgtcgac gagttgccgg tgcaacgctg gagttgcgac  
960  
gggatecttg tctcgacccc gaccggatcg acggcctacg cgttctcagc tggcggcccc  
1020  
gtcatgtggc ccgatctcga cgccatgctc atggtgccgt tgagcgctca cgtctctttt  
1080  
gtcgcaccgc tggatcatgag ccagctgct cgagtggacc ttgacatcca gccagacggg  
1140  
tcagaatcgg cggttctgtg gtgcgacggg cgccgatcgt gcaccgtacg accgggggaa  
1200  
agaatcacgg tcgtccgcca tcccgaccgt ctgcgcattg ctcgtctggc cgcgcagccc  
1260  
ttcacatcgc gtctggtcaa gaagtttgag ctcccggtea gcgggtggcg tcagggtcgt  
1320  
gaccgtcatc acctagagga gacttcgtga tacgtagtgt gcgaattcgt gga'ctcggcg  
1380  
tcatcgatga gacggtcctc gaaccctcat ccgcgctgac ggcagtcacc ggcgagaccg  
1440  
gcgcgggaaa gaccatggtg gtcaccggg  
1469

&lt;210&gt; 354

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

```

Met Gly Arg Tyr Cys Gly Leu Val Asn Asp Thr Ser Pro Ser Arg Tyr
 1           5           10           15
Val Val Val Val Thr His Ala Thr Arg Asp Asp Ala Phe Asp Ala Ala
      20           25           30
Ala Glu Phe Ile Ser Glu Met Ala Gly Arg Asp Ile Gly Cys Ala Val
      35           40           45
Pro Asp Asp Gln Val Lys Pro Met Ser Ser Lys Leu Pro Gly Ile Asp
      50           55           60
Leu Glu Ser Leu Gly Glu Phe Ala His Glu Ala Glu Val Val Val Val
      65           70           75           80
Phe Gly Gly Asp Gly Thr Ile Leu Arg Ala Ala Glu Trp Ser Leu Pro
      85           90           95
Arg His Val Pro Met Ile Gly Val Asn Leu Gly His Val Gly Phe Leu
      100          105          110
Ala Glu Leu Glu Arg Ser Asp Met Ala Asp Leu Val Asn Lys Val Cys
      115          120          125
Ser Arg Asp Tyr Thr Val Glu Asp Arg Leu Val Leu Lys Thr Thr Val
      130          135          140
Thr Glu His Ser Gly Gln His Arg Trp Ser Ser Phe Ala Val Asn Glu
      145          150          155          160
Leu Ser Leu Glu Lys Ala Ala Arg Arg Arg Met Leu Asp Val Leu Ala
      165          170          175
Ser Val Asp Glu Leu Pro Val Gln Arg Trp Ser Cys Asp Gly Ile Leu
      180          185          190
Val Ser Thr Pro Thr Gly Ser Thr Ala Tyr Ala Phe Ser Ala Gly Gly
      195          200          205
Pro Val Met Trp Pro Asp Leu Asp Ala Met Leu Met Val Pro Leu Ser
      210          215          220
Ala His Ala Leu Phe Ala Arg Pro Leu Val Met Ser Pro Ala Ala Arg
      225          230          235          240
Val Asp Leu Asp Ile Gln Pro Asp Gly Ser Glu Ser Ala Val Leu Trp
      245          250          255
Cys Asp Gly Arg Arg Ser Cys Thr Val Arg Pro Gly Glu Arg Ile Thr
      260          265          270
Val Val Arg His Pro Asp Arg Leu Arg Ile Ala Arg Leu Ala Ala Gln
      275          280          285
Pro Phe Thr Ser Arg Leu Val Lys Lys Phe Glu Leu Pro Val Ser Gly
      290          295          300
Trp Arg Gln Gly Arg Asp Arg His His Leu Glu Glu Thr Ser
      305          310          315

```

&lt;210&gt; 355

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

```

nggatccac ctcctggaat ggaaaccac ataccagttc tcttcctcga tttgaatgcg
60
gatgacctca gtgccaatga gcagcttggt ggcccccatg catccggcgt gaactccatc
120

```



ctgcccaagg agcatggcag ccagtttttc tacctgcccc tcataaagca cagtgatgat  
 180  
 gaggtttcag ccacagcctc ttgggattcc tcggtgcatg attctgttca cttgaatggg  
 240  
 gtcacaccac agaatgaaag gatttaccta attgtgaaaa ccacagttca actcagccac  
 300  
 cctgctgcta tggagttagt attacgaaaa cgaattgcag ccaatattta caacaaacag  
 360  
 agtttcacgc agagtttgaa gaggagaata tccctgaaaa atatatttta ttcctgtggt  
 420  
 gtaacctatg aaatagtatc caatatacca aaggcaactg aggagataga ggaccgggaa  
 480  
 acgctggctc tcctggcagc aaggagtga aacgaaggca catcagatgg gaagacgtac  
 540  
 attgagaagt acactcga  
 558

<210> 356  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 356  
 Xaa Ile Pro Pro Pro Gly Met Glu Thr His Ile Pro Val Leu Phe Leu  
 1 5 10 15  
 Asp Leu Asn Ala Asp Asp Leu Ser Ala Asn Glu Gln Leu Val Gly Pro  
 20 25 30  
 His Ala Ser Gly Val Asn Ser Ile Leu Pro Lys Glu His Gly Ser Gln  
 35 40 45  
 Phe Phe Tyr Leu Pro Ile Ile Lys His Ser Asp Asp Glu Val Ser Ala  
 50 55 60  
 Thr Ala Ser Trp Asp Ser Ser Val His Asp Ser Val His Leu Asn Gly  
 65 70 75 80  
 Val Thr Pro Gln Asn Glu Arg Ile Tyr Leu Ile Val Lys Thr Thr Val  
 85 90 95  
 Gln Leu Ser His Pro Ala Ala Met Glu Leu Val Leu Arg Lys Arg Ile  
 100 105 110  
 Ala Ala Asn Ile Tyr Asn Lys Gln Ser Phe Thr Gln Ser Leu Lys Arg  
 115 120 125  
 Arg Ile Ser Leu Lys Asn Ile Phe Tyr Ser Cys Gly Val Thr Tyr Glu  
 130 135 140  
 Ile Val Ser Asn Ile Pro Lys Ala Thr Glu Glu Ile Glu Asp Arg Glu  
 145 150 155 160  
 Thr Leu Ala Leu Leu Ala Ala Arg Ser Glu Asn Glu Gly Thr Ser Asp  
 165 170 175  
 Gly Lys Thr Tyr Ile Glu Lys Tyr Thr Arg  
 180 185

<210> 357  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 357

acgcgtgcgt gtgttggtgtg agtcgggtgt gtgcatgcgt gtgggtgtgc agcaggtggg  
60  
gtacgatcag gctgaaggct gatcaggcac aaggetctgg gggagagccc tggttccagc  
120  
cctgggggtca gagcagcagg ggccagaaag acggcagggg tgagcactgc acccgctggg  
180  
cagggcaggg ccacagaagg cagggcatgg aggccacgtg aagggcttga cagagtggat  
240  
ggatgtctcc ggaagcacct gcgtggccca gtcagcagga tcagactcgc atgtgtcagg  
300  
gtcaccatgg gtcagcgagg atn  
323

<210> 358  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 358  
Met Val Thr Leu Thr His Ala Ser Leu Ile Leu Leu Thr Gly Pro Arg  
1 5 10 15  
Arg Cys Phe Arg Arg His Pro Ser Thr Leu Ser Ser Pro Ser Arg Gly  
20 25 30  
Leu His Ala Leu Pro Ser Val Ala Leu Pro Cys Pro Ala Gly Ala Val  
35 40 45  
Leu Thr Pro Ala Val Phe Leu Ala Pro Ala Ala Leu Thr Pro Gly Leu  
50 55 60  
Glu Pro Gly Leu Ser Pro Arg Ala Leu Cys Leu Ile Ser Leu Gln Pro  
65 70 75 80  
Asp Arg Thr Pro Pro Ala Ala His Pro His Ala Cys Thr His Pro Thr  
85 90 95  
His Thr Thr His Ala Arg  
100

<210> 359  
<211> 265  
<212> DNA  
<213> Homo sapiens

<400> 359  
acgcgtaccg acaagcggcc ggtgatggcc gaccttcgcg aatcggggcg aatcgagcag  
60  
gatgcggaca tgatcgtctt catctaccgc gacgattact acaacaagga aaattcgccg  
120  
gacaaggggc tggccgagat catcatcggc aagcatcggg ggggccccac cggctcgtgc  
180  
aagctgaagt tcttcggcga gtacaccgt ttcgacaacc tggcccacaa ctcggttggt  
240  
tcgttcgaat aacggatgat tccgg  
265

<210> 360  
<211> 83  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 360

```

Thr Arg Thr Asp Lys Arg Pro Val Met Ala Asp Leu Arg Glu Ser Gly
 1           5           10           15
Ala Ile Glu Gln Asp Ala Asp Met Ile Val Phe Ile Tyr Arg Asp Asp
          20           25           30
Tyr Tyr Asn Lys Glu Asn Ser Pro Asp Lys Gly Leu Ala Glu Ile Ile
          35           40           45
Ile Gly Lys His Arg Gly Gly Pro Thr Gly Ser Cys Lys Leu Lys Phe
          50           55           60
Phe Gly Glu Tyr Thr Arg Phe Asp Asn Leu Ala His Asn Ser Val Gly
65           70           75           80
Ser Phe Glu

```

&lt;210&gt; 361

&lt;211&gt; 453

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 361

```

gctttgcagg aggaaatctc tatctctggc tgcaagatga ggctgagcta cctgagcagc
60
cggacccctg gctacaaatc tgtcctgagg atcagcctca cccacccgac catccccttc
120
aacctcatga aggtgcacct catggtagcg gtggagggcc gcctcttcag gaagtgggtc
180
gctgcagccc cagacctgtc ctattatttc atttgggaca agacagacgt ctacaaccag
240
aagtggtttg ggctttcaga agcctttggt tccgtggggt atgaatatga atcctgcccc
300
gatctaattc tgtgggaaaa aagaacaaca gtgctgcagg gctatgaaat tgacgcgtcc
360
aagcttggag gatggagcct agacaaacat catgccctca acattcaaag tggcatcctg
420
cacaaaggga atgngagaa ccagtttgtg tct
453

```

&lt;210&gt; 362

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 362

```

Ala Leu Gln Glu Glu Ile Ser Ile Ser Gly Cys Lys Met Arg Leu Ser
 1           5           10           15
Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Ser Val Leu Arg Ile Ser
          20           25           30
Leu Thr His Pro Thr Ile Pro Phe Asn Leu Met Lys Val His Leu Met
          35           40           45
Val Ala Val Glu Gly Arg Leu Phe Arg Lys Trp Phe Ala Ala Ala Pro
          50           55           60
Asp Leu Ser Tyr Tyr Phe Ile Trp Asp Lys Thr Asp Val Tyr Asn Gln

```

```

65          70          75          80
Lys Val Phe Gly Leu Ser Glu Ala Phe Val Ser Val Gly Tyr Glu Tyr
      85          90          95
Glu Ser Cys Pro Asp Leu Ile Leu Trp Glu Lys Arg Thr Thr Val Leu
      100          105          110
Gln Gly Tyr Glu Ile Asp Ala Ser Lys Leu Gly Gly Trp Ser Leu Asp
      115          120          125
Lys His His Ala Leu Asn Ile Gln Ser Gly Ile Leu His Lys Gly Asn
      130          135          140
Gly Glu Asn Gln Phe Val Ser
145          150

```

&lt;210&gt; 363

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 363

```

ggtagcaaaa aagtttgcca cagtattcac actccagggtc tccataaacc ttccagatcc
60
gctcacacaa gctggtgttc atttgcttct tctgtaaaact gttcaggacc ttcataaaag
120
cggtgatgcc tgaccgggtgc tcaggggagc ctttgcaaga gtcagggtga tgtgtgatgg
180
tgtccccacc accagctact ggaggaggga ggtctgaggc ctcagctggg tttgacctga
240
gacacctgct gggatctggg tcaccagctg aaagcacagc catgtttctgc cttcccccta
300
gggggctctg ggcgccatgg ctttcctgat ctgaccagc actctgggccc ttggacagca
360
gtagtgtgat cacttcacct tgcgtctgga ctgagcttct gtgctgcatg tctgggggct
420
tctcaggagc agcatgagcc tctgcggagg aggtatcatt tttcaacaaa aaatcatctg
480
aaaccacctc ttgagaatgc ag
502

```

&lt;210&gt; 364

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 364

```

Met Gln His Arg Ser Ser Val Gln Thr Gln Gly Glu Val Ile Thr Leu
1          5          10          15
Leu Leu Ser Lys Ala Gln Ser Ala Gly Ser Asp Gln Glu Ser His Gly
      20          25          30
Ala Gln Ser Pro Leu Gly Glu Gly Gln Asn Met Ala Val Leu Ser Ala
      35          40          45
Gly Asp Pro Asp Pro Ser Arg Cys Leu Arg Ser Asn Pro Ala Glu Ala
      50          55          60
Ser Asp Leu Leu Pro Pro Val Ala Gly Gly Gly Asp Thr Ile Thr His
65          70          75          80
Gln Pro Asp Ser Cys Lys Ala Ala Pro Glu His Arg Ser Gly Ile Thr

```

			85					90				95			
Ala	Phe	Met	Lys	Val	Leu	Asn	Ser	Leu	Gln	Lys	Lys	Gln	Met	Asn	Thr
			100					105				110			
Ser	Leu	Cys	Glu	Arg	Ile	Trp	Lys	Val	Tyr	Gly	Asp	Leu	Glu	Cys	Glu
			115				120					125			
Tyr	Cys	Gly	Lys	Leu	Phe	Trp	Tyr								
			130				135								

&lt;210&gt; 365

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 365

```

atctcaacgg atgcatccat caaggagatg atccccccag gtgctcttgt tatgctcaca
60
ccactgatcg ttgggattct atttgggggt gagaccctct ctggagtcct tgctgggtgcc
120
cttgtctctg gtgttcagat tgccatttct gcatccaaca ctgggtggtgc ctgggacaac
180
gccaagaagt acattgaggc tggagtttca gagcatgcca ggacccttgg cccaaaaggt
240
tctgaccctc acaaggcggc tgtcattggt gacaccattg gagatcctct caaggacacg
300
tctggccctt ccctcaacat cctcatcaag ctt
333

```

&lt;210&gt; 366

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 366

Ile	Ser	Thr	Asp	Ala	Ser	Ile	Lys	Glu	Met	Ile	Pro	Pro	Gly	Ala	Leu
1				5				10					15		
Val	Met	Leu	Thr	Pro	Leu	Ile	Val	Gly	Ile	Leu	Phe	Gly	Val	Glu	Thr
			20				25					30			
Leu	Ser	Gly	Val	Leu	Ala	Gly	Ala	Leu	Val	Ser	Gly	Val	Gln	Ile	Ala
		35				40					45				
Ile	Ser	Ala	Ser	Asn	Thr	Gly	Gly	Ala	Trp	Asp	Asn	Ala	Lys	Lys	Tyr
		50			55			60							
Ile	Glu	Ala	Gly	Val	Ser	Glu	His	Ala	Arg	Thr	Leu	Gly	Pro	Lys	Gly
65				70				75				80			
Ser	Asp	Pro	His	Lys	Ala	Ala	Val	Ile	Gly	Asp	Thr	Ile	Gly	Asp	Pro
			85				90					95			
Leu	Lys	Asp	Thr	Ser	Gly	Pro	Ser	Leu	Asn	Ile	Leu	Ile	Lys	Leu	
			100				105					110			

&lt;210&gt; 367

&lt;211&gt; 381

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 367

gcgttcgtcg cactaccg cgggcgcgga acccttgacg agctactcga agcatggaca  
60  
tggcagcagc tcggtgtaca cagcaaaccg gtgngccttg tacgactcga cnncttctgg  
120  
gcaccgctga ccgcgctact caaccacatg accatcgaaa gcttcattcg ccctgaggac  
180  
cgcgctcgc tcgtgatcgc cgataccata catcagctga tggccgatct tgagggatgg  
240  
accccaccac caccgaagtg gcgctcgtga catagaacaa atgattctga ctatggctca  
300  
ttgacatctg cgcagcggt actagctcca ttgacttcaa atcgggcctt ggccgaggct  
360  
cngttcaggt ggcccgaat g  
381

<210> 368  
<211> 89  
<212> PRT  
<213> Homo sapiens

<400> 368  
Ala Phe Val Ala Leu Pro Gly Gly Gly Thr Leu Asp Glu Leu Leu  
1 5 10 15  
Glu Ala Trp Thr Trp Gln Gln Leu Gly Val His Ser Lys Pro Val Xaa  
20 25 30  
Leu Val Arg Leu Asp Xaa Phe Trp Ala Pro Leu Thr Ala Leu Leu Asn  
35 40 45  
His Met Thr Ile Glu Ser Phe Ile Arg Pro Glu Asp Arg Ala Ser Leu  
50 55 60  
Val Ile Ala Asp Thr Ile His Gln Leu Met Ala Asp Leu Glu Gly Trp  
65 70 75 80  
Thr Pro Pro Pro Pro Lys Trp Arg Ser  
85

<210> 369  
<211> 313  
<212> DNA  
<213> Homo sapiens

<400> 369  
gatacatgat cctctcatat cgcacacaca ccgctccccct ctgccgcaat tcgcagacaa  
60  
acttgcgag gcttcacagc aagccgtcaa ggctgcttcc tgtgggctac cgatagtctc  
120  
gtacgcgagt tctcggacat caacgccaac gtcgggcaag atactgtcaa cgccatctac  
180  
acattctacg agcagcaagc gaccagtttc cttcgccagc tgaacgacct cccacccgaa  
240  
gagcttcccg acgtcatcga ggacttcttc cgctgtcca ctgatgtcct tctttaccat  
300  
ttccagcaag ctt  
313

<210> 370

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 370

```

Ser Ser His Thr Ala His Thr Pro Leu Pro Ser Ala Ala Ile Arg Arg
 1           5           10           15
Gln Thr Cys Ala Gly Phe Thr Ala Ser Arg Gln Gly Cys Phe Leu Trp
          20           25           30
Ala Thr Asp Ser Leu Val Arg Glu Phe Ser Asp Ile Asn Ala Asn Val
          35           40           45
Gly Gln Asp Thr Val Asn Ala Ile Tyr Thr Phe Tyr Glu Gln Gln Ala
          50           55           60
Thr Ser Phe Leu Arg Gln Leu Asn Asp Leu Pro Pro Glu Glu Leu Pro
65           70           75           80
Asp Val Ile Glu Asp Phe Phe Arg Leu Ser Thr Asp Val Leu Leu Tyr
          85           90           95
His Phe Gln Gln Ala
          100

```

&lt;210&gt; 371

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 371

```

atgacggggtc acgtcatcct ggcgattcca caggtgggtga cgatcatggat cggcctcatc
60
tgcacgcacca ttggcacggg ctttatcaag ccgaacctct ccacgggtggg aggaggtctt
120
tacgatgacg gtgacccccg ccgcgatcag ggtttcctgt acttctacat gtcgatcagt
180
attggatctc tcttcgcgcc gatcgtcacc ggctctcctca aggaccatta cggctaccac
240
gtaggtttca ttgccgctgc tateggatg gctctgggtc tgatcgctt cttccacggg
300
cgttccaaac tgcgtgagct cgccttcgac atccccaatc cgctggcccc cggcgagggt
360
cgccggatgg tgctccgagg
380

```

&lt;210&gt; 372

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 372

```

Met Thr Gly His Val Ile Leu Ala Ile Pro Gln Val Val Thr Ser Trp
 1           5           10           15
Ile Gly Leu Ile Cys Ile Ala Ile Gly Thr Gly Phe Ile Lys Pro Asn
          20           25           30
Leu Ser Thr Val Val Gly Gly Leu Tyr Asp Asp Gly Asp Pro Arg Arg
          35           40           45
Asp Gln Gly Phe Leu Tyr Phe Tyr Met Ser Ile Ser Ile Gly Ser Leu

```

50                      55                      60  
 Phe Ala Pro Ile Val Thr Gly Leu Leu Lys Asp His Tyr Gly Tyr His  
 65                      70                      75                      80  
 Val Gly Phe Ile Ala Ala Ala Ile Gly Met Ala Leu Gly Leu Ile Ala  
                     85                      90                      95  
 Phe Phe His Gly Arg Ser Lys Leu Arg Glu Leu Ala Phe Asp Ile Pro  
                     100                      105                      110  
 Asn Pro Leu Ala Pro Gly Glu Gly Arg Arg Met Val Leu Arg  
                     115                      120                      125

<210> 373  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<400> 373  
 acatgttgga aaaattgcct ccactctgg tgctacaggt atgaatctca gccacagtga  
 60  
 tgactgtggc agctacaggc ctgatgaaca cccaccaag aaaaggagca tcatgtgcct  
 120  
 gcttctctct ggttctctaaa tcctttggcc aaacattttc cccacaaccc tccactccag  
 180  
 ttggctggtc actgcctctc agaaagaagt ccaggtccc tgtcagcccc agagcgctg  
 240  
 catggactct gccactgtc cctttccaac acggaggccc ccaattctgg ggaccctac  
 300  
 accctaccct gtaccaccac atccccatgc ctgctccaga cagcactaac ctcccatgac  
 360  
 agtgggacca aagcagttct taaagggtcca atccactcag ttcttaaagt aaaaacagtt  
 420  
 gcccatgagt ccccccaaa gacgtccgca catatgccaa acattcggtg tgcac  
 475

<210> 374  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 374  
 Met Gly Met Trp Trp Tyr Arg Val Gly Cys Arg Gly Pro Gln Asn Trp  
 1                      5                      10                      15  
 Gly Pro Pro Cys Trp Lys Gly Thr Val Gly Arg Val His Ala Gly Ala  
                     20                      25                      30  
 Leu Gly Leu Thr Gly Thr Trp Asp Phe Phe Leu Arg Gly Ser Asp Gln  
                     35                      40                      45  
 Pro Thr Gly Val Glu Gly Cys Gly Glu Asn Val Trp Pro Lys Asp Leu  
                     50                      55                      60  
 Gly Thr Arg Glu Lys Gln Ala His Asp Ala Pro Phe Leu Gly Gly Val  
 65                      70                      75                      80  
 Phe Ile Arg Pro Val Ala Ala Thr Val Ile Thr Val Ala Glu Ile His  
                     85                      90                      95  
 Thr Cys Ser Thr Arg Val Gly Gly Asn Phe Ser Asn Met  
                     100                      105



<210> 375  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 375  
 nnacgcgtcg cctccacctc gaaaccgcc ggcggtcgtt ttttcacat ggccgaccgc  
 60  
 aaggcccaag ttgcgacggt cacggacacg ctgtatttca cgccgtcgca atgggatgga  
 120  
 tgcattggcac ggatgcgtgg ggataagata tcagcactga agtggaatca gatgcagatg  
 180  
 gcggcatgct ccttcatagc ggcagtgggt gcgaagctgg gctgcccga gcgcactatg  
 240  
 ggcacggcgc agctgctgta ccagcgtttc catctatttc atgcgccgac tgagttttcg  
 300  
 ttacatgagg tggctttgac gtgtctcttc ac  
 332

<210> 376  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 376  
 Xaa Arg Val Ala Ser Thr Ser Lys Pro Ala Gly Gly Arg Phe Phe Thr  
 1 5 10 15  
 Met Ala Asp Arg Lys Ala Gln Val Ala Thr Val Thr Asp Thr Leu Tyr  
 20 25 30  
 Phe Thr Pro Ser Gln Trp Asp Gly Cys Met Ala Arg Met Arg Gly Asp  
 35 40 45  
 Lys Ile Ser Ala Leu Lys Trp Asn Gln Met Gln Met Ala Ala Cys Ser  
 50 55 60  
 Phe Ile Ala Ala Val Gly Ala Lys Leu Gly Cys Pro Gln Arg Thr Met  
 65 70 75 80  
 Gly Thr Ala Gln Leu Leu Tyr Gln Arg Phe His Leu Phe His Ala Pro  
 85 90 95  
 Thr Glu Phe Ser Leu His Glu Val Ala Leu Thr Cys Leu Phe  
 100 105 110

<210> 377  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 377  
 cgcgtgccag gtatgtcaac tgatctgtcg gatatttccg aggttgagta ccgtcaactg  
 60  
 aggctggaac gagtgggtgt gtgttcgggt tggactcagg gaactgccgc agacgccgag  
 120  
 aacgctatgg cggagctgaa agcccttgtc gaaacggcgg gatctcaggt actcgaagct  
 180  
 gtcatgcaac gtcggactac cccggatccg gcgacgtaca ttggttcggg caaggtggct  
 240

gagcttgccg aggtggtgcg ggcgactggt gccgatactg tcattttgtga cgggtgaactt  
 300  
 gacgccgctc agttgcgcaa cctcgaggat cgggtcaagn gcaaagttgt ggaccggctcg  
 360  
 gtctgattc  
 369

<210> 378  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 378  
 Arg Val Pro Gly Met Ser Thr Asp Leu Ser Asp Ile Ser Glu Val Glu  
 1 5 10 15  
 Tyr Arg Gln Leu Arg Leu Glu Arg Val Val Leu Cys Ser Val Trp Thr  
 20 25 30  
 Gln Gly Thr Ala Ala Asp Ala Glu Asn Ala Met Ala Glu Leu Lys Ala  
 35 40 45  
 Leu Ala Glu Thr Ala Gly Ser Gln Val Leu Glu Ala Val Met Gln Arg  
 50 55 60  
 Arg Thr Thr Pro Asp Pro Ala Thr Tyr Ile Gly Ser Gly Lys Val Ala  
 65 70 75 80  
 Glu Leu Ala Glu Val Val Arg Ala Thr Gly Ala Asp Thr Val Ile Cys  
 85 90 95  
 Asp Gly Glu Leu Asp Ala Ala Gln Leu Arg Asn Leu Glu Asp Arg Val  
 100 105 110  
 Lys Xaa Lys Val Val Asp Arg Ser Val  
 115 120

<210> 379  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 379  
 acgcgttact taaacttatc tgtaaataat aaattcatta tttctagttg gtttaggtact  
 60  
 atgggctgtg gtttaccagg tgctatggca gctaaaattg cttatccaaa ccgtcaagca  
 120  
 gtagctatca caggcgacgg tgcgttccaa atggtaatgc aagactttgc tacagctggt  
 180  
 caatataact taccaatgac aatctttgta ttaaataaca aacaattgac attcattaaa  
 240  
 tatgaacaac aagctgctgg tgaattagag tatgccattg atttctctga tatggatcat  
 300  
 gctaaatttg ctgaagctgc tgggtggtaaa ggctatgttg tgagagatgt aagtcgtctt  
 360  
 gacgacatcg ttgaagaggc aatgggtcaa gatgttccaa caatcggt  
 408

<210> 380  
 <211> 136  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 380

```

Thr Arg Tyr Leu Asn Leu Ser Val Asn Asn Lys Phe Ile Ile Ser Ser
 1           5           10           15
Trp Leu Gly Thr Met Gly Cys Gly Leu Pro Gly Ala Met Ala Ala Lys
 20           25           30
Ile Ala Tyr Pro Asn Arg Gln Ala Val Ala Ile Thr Gly Asp Gly Ala
 35           40           45
Phe Gln Met Val Met Gln Asp Phe Ala Thr Ala Val Gln Tyr Asn Leu
 50           55           60
Pro Met Thr Ile Phe Val Leu Asn Asn Lys Gln Leu Ser Phe Ile Lys
 65           70           75           80
Tyr Glu Gln Gln Ala Ala Gly Glu Leu Glu Tyr Ala Ile Asp Phe Ser
 85           90           95
Asp Met Asp His Ala Lys Phe Ala Glu Ala Ala Gly Gly Lys Gly Tyr
100          105          110
Val Val Arg Asp Val Ser Arg Leu Asp Asp Ile Val Glu Glu Ala Met
115          120          125
Ala Gln Asp Val Pro Thr Ile Val
130          135

```

&lt;210&gt; 381

&lt;211&gt; 613

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 381

```

nacgcgtcat aggcgggccc agtgaagac cacgccaaca cagttggttg agatccgcgt
60
tgagggaag gtcctgcgcg tcccgcgaaa tctggtcaag gcctaccact ctgggctgat
120
cgacgtcgag gactgaaccc tgggagcctg ggcgggccag catgactgct caggctcatt
180
acaaaaacgc gtcgatcccc taggggtgtc gtcgatgagca agcccgaagt gaccctgccc
240
gattccgccc ccgacgacct cgctggtgag gacatcacca tcggcgacgg ccctgaagcg
300
tccgctggca acctcgtcga agtgacttac gtcggcggtg ccttaagcaa tggctgtgag
360
ttcgattctt cctggaaccg cggggagccg ctgaccttcc aactaggggc tggccaggtg
420
atccccgagt gggatgaagg tgtccaaggt atgaaggctg gtggacgacg caaactcgtc
480
atccccacc accttgctta cggtcgcaa ggaatctccg gtgtgatcgc tggcggtag
540
acgctggtct tcgtctgcga ccttgtaaac atcatctgac gtgacccccg ctcaagcagt
600
cttcgcgccc ggg
613

```

&lt;210&gt; 382

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 382

Leu Leu Arg Leu Ile Thr Lys Thr Arg Arg Ser Arg Arg Val Val Val  
 1 5 10 15  
 Met Ser Lys Pro Glu Val Thr Leu Pro Asp Ser Ala Pro Asp Asp Leu  
 20 25 30  
 Val Val Glu Asp Ile Thr Ile Gly Asp Gly Pro Glu Ala Ser Ala Gly  
 35 40 45  
 Asn Leu Val Glu Val His Tyr Val Gly Val Ala Leu Ser Asn Gly Arg  
 50 55 60  
 Glu Phe Asp Ser Ser Trp Asn Arg Gly Glu Pro Leu Thr Phe Gln Leu  
 65 70 75 80  
 Gly Ala Gly Gln Val Ile Pro Glu Trp Asp Glu Gly Val Gln Gly Met  
 85 90 95  
 Lys Val Gly Gly Arg Arg Lys Leu Val Ile Pro His His Leu Ala Tyr  
 100 105 110  
 Gly Pro Gln Gly Ile Ser Gly Val Ile Ala Gly Gly Glu Thr Leu Val  
 115 120 125  
 Phe Val Cys Asp Leu Val Asn Ile Ile  
 130 135

&lt;210&gt; 383

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 383

nggagcaaca cctggctcctt gggaatgaag tgtaggagtt gcatttgctg aggttggtgt  
 60  
 ttgccaaaga gatgccagct tcttcgaact actgctgtgc aactcttcac gttcaaaacc  
 120  
 cagttttctg tttttcacac ctgaacatac accccctgc agttgggtgg ctcccccggt  
 180  
 accagctggg ctctatctac agagagagca atggcttccc ttcccttgaa ggaagtctca  
 240  
 ccctcacaag gacacttgat ccgctgcaaa gcagaaagtg tgcggaccct ttgggaaggg  
 300  
 cgttcttttc ttgttttagaa cctaggattc tgtttttccc aaacaggatc an  
 352

&lt;210&gt; 384

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 384

Met Pro Ala Ser Ser Asn Tyr Cys Cys Ala Thr Leu His Val Gln Asn  
 1 5 10 15  
 Pro Val Phe Cys Phe Ser His Leu Asn Ile His Pro Pro Ala Val Gly  
 20 25 30  
 Trp Leu Pro Arg Tyr Gln Leu Gly Ser Ile Tyr Arg Glu Ser Asn Gly  
 35 40 45  
 Phe Pro Ser Leu Glu Gly Ser Leu Thr Leu Thr Arg Thr Leu Asp Pro

50                      55                      60  
 Leu Gln Ser Arg Lys Cys Ala Asp Pro Leu Gly Arg Ala Phe Phe Ser  
 65                      70                      75                      80  
 Cys Leu Glu Pro Arg Ile Leu Phe Phe Pro Asn Arg Ile  
                     85                      90

<210> 385  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<400> 385  
 gccggcgcca cgaaatgcaa aatgcgccct tcaccggacg ccaggttgat cgagccgcca  
 60  
 gcacctcggg caatgtcctg ggcttgactg gcacacgcaa tcaaagcgag caacaacaca  
 120  
 caaaaacgca tcatgaggca gacgccaggg aagtgcagag agccgcagca ggcgcgcggc  
 180  
 gattggaaat atcgggtgagg ctaatggtca ccagcgcttg caggttgat tgggtggcca  
 240  
 attcgcgga cgacagcacc gccagttcca gctcgccgag cagcaccagg cgacgcaagc  
 300  
 tgcggcgcaa ctccgggtgc accaacaaca ccgcactgtt ca  
 342

<210> 386  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 386  
 Met Gln Asn Ala Pro Phe Thr Gly Arg Gln Val Asp Arg Ala Ala Ser  
 1                      5                      10                      15  
 Thr Ser Gly Asn Val Leu Gly Leu Thr Gly Thr Arg Asn Gln Ser Glu  
                     20                      25                      30  
 Gln Gln His Thr Lys Thr His His Glu Ala Asp Ala Arg Glu Val Thr  
                     35                      40                      45  
 Glu Ala Ala Ala Gly Ala Arg Arg Leu Glu Ile Ser Val Arg Leu Met  
                     50                      55                      60  
 Val Thr Ser Ala Cys Arg Leu Tyr Ser Val Ala Asn Ser Arg Asn Asp  
 65                      70                      75                      80  
 Ser Thr Ala Ser Ser Ser Ser Pro Arg Ser Thr Arg Arg Arg Lys Leu  
                     85                      90                      95  
 Arg Arg Asn Ser Gly Cys Thr Asn Asn Thr Ala Leu Phe  
                     100                      105

<210> 387  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 387  
 acgcgtgacg cgccggcatc ggaagcggtg actgcagaga agaccgagca cgtggctgtg  
 60

ggacgtgctg gcaegtctga catggtgcgt ggacccgcct tctcttcgcc tgcgcatgcc  
 120  
 atgcaagagg agcttgacaa tgtgctgat ctgcgccatg cgcggcagca agcgctcgat  
 180  
 gctgttcggt ccgagctgct cgaagcgcag caagcatgtg cctcgtgccg gctgcagctg  
 240  
 cagcatgtgc cagatgatcg tgtgcgagcg catcccatat accaggcgct ccatgcggac  
 300  
 gttgcttaca tgcagcaaga acttgatcac gtacgagacg cattggcttc ggcagaatct  
 360  
 gagaatgcga gcctgcgcg  
 379

<210> 388

<211> 114

<212> PRT

<213> Homo sapiens

<400> 388

Met	Arg	Leu	Val	Arg	Asp	Gln	Val	Leu	Ala	Ala	Cys	Lys	Gln	Arg	Pro
1			5					10					15		
His	Gly	Ala	Pro	Gly	Ile	Trp	Asp	Ala	Leu	Ala	His	Asp	His	Leu	Ala
			20				25					30			
His	Ala	Ala	Ala	Ala	Ala	Gly	Thr	Arg	His	Met	Leu	Ala	Ala	Leu	Arg
		35				40					45				
Ala	Ala	Arg	Asn	Glu	Gln	His	Arg	Ala	Leu	Ala	Ala	Ala	His	Gly	Arg
	50				55				60						
Asp	His	Ala	His	Cys	Gln	Ala	Pro	Leu	Ala	Trp	His	Ala	Gln	Ala	Lys
65				70				75					80		
Arg	Arg	Arg	Val	His	Ala	Pro	Cys	Gln	Thr	Cys	Gln	His	Val	Pro	Gln
			85					90					95		
Pro	Arg	Ala	Arg	Ser	Ser	Leu	Gln	Ser	Thr	Leu	Pro	Met	Pro	Ala	Arg
		100						105					110		
His	Ala														

<210> 389

<211> 382

<212> DNA

<213> Homo sapiens

<400> 389

ngatggccga ctgtcccact gtcagtacgc gaagctcgcc gtcgagtcgg tccacgtccg  
 60  
 ggctcccccac gtgctccgca accctccgaa gcgatgacct ggccccggggg cggcaacgag  
 120  
 gtattgcggt tggagacgct tggggtcaat tacggccagg tgcgcgccgt cgatgccctg  
 180  
 acgaccaccg tagagcgagg caccatcacc tgcctcatgg gtcgaaatgg atcaggcaag  
 240  
 tcgtctctga tgtggggcgat ccaaggggca acaaagtcct caggaggagg actggtcaac  
 300  
 cagcaggggt cttggggctga cccccgaaa gccgacgccg cgaccgctcg acgaatgggtg  
 360

agcttagtcc cgcagtcagc cn  
382

<210> 390  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 390  
Xaa Trp Pro Thr Val Pro Leu Ser Val Arg Glu Ala Arg Arg Arg Val  
1 5 10 15  
Gly Pro Arg Pro Gly Leu Pro Arg Ala Pro Gln Pro Ser Glu Ala Met  
20 25 30  
Thr Trp Pro Gly Gly Gly Asn Glu Val Leu Arg Leu Glu Thr Leu Gly  
35 40 45  
Val Asn Tyr Gly Gln Val Arg Ala Val Asp Ala Leu Thr Thr Thr Val  
50 55 60  
Glu Arg Gly Thr Ile Thr Cys Leu Met Gly Arg Asn Gly Ser Gly Lys  
65 70 75 80  
Ser Ser Leu Met Trp Ala Ile Gln Gly Ala Thr Lys Ser Ser Gly Arg  
85 90 95  
Val Leu Val Asn His Glu Gly Ser Trp Ala Asp Pro Arg Lys Ala Asp  
100 105 110  
Ala Ala Thr Ala Arg Arg Met Val Ser Leu Val Pro Gln Ser Ala  
115 120 125

<210> 391  
<211> 456  
<212> DNA  
<213> Homo sapiens

<400> 391  
nnacgcgttg ccgctctgtg aggcgccat caccgtgaca ctctcggtgc tatgagcgtg  
60  
tgcgacccta tcggtggcat gcaagccntg ttcagcgact ctattcccca gcagatcttc  
120  
ctgcccgcgc cctccttctt tcgcccga cgaggccgac gtggagacgt ggtgcagcga  
180  
ggccgatgaa tcctggacac ccaccgagac gacctggccg ggatcattgt cgagcccatc  
240  
ttgcaaggag ccggaggcat gtggccgtgg tctccgtcct gtctgaagca cctgcgccgt  
300  
cgtgctgatg aacttgacct agttcttate gccgacgagg tcgctactgg atttgggcgg  
360  
actggcaaac ttttcgcatg cgagtgggcc gatatcgttc ctgacatcat ggtggttggg  
420  
aatccatga ctggcgata cctgaccag tcggcc  
456

<210> 392  
<211> 55  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 392

Gly Ala Tyr His Gly Asp Thr Leu Gly Ala Met Ser Val Cys Asp Pro  
 1 5 10 15  
 Ile Gly Gly Met His Ala Xaa Phe Ser Asp Ser Ile Pro Gln Gln Ile  
 20 25 30  
 Phe Leu Pro Ala Pro Ser Phe Phe Arg Arg Arg Arg Gly Arg Arg Gly  
 35 40 45  
 Asp Val Val Gln Arg Gly Arg  
 50 55

&lt;210&gt; 393

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 393

nacgcgttgc tcgtcattgg tggtactcgc gcctacgaag gatatctacac catgatgact  
 60  
 gagcgggacc ggtacccggc ttcccgatt cgcacgggtgt gcatcccggc ttctatcgac  
 120  
 aacaacctcc ccggttcgga actgtccatc ggcaccgaca ccgctctcaa cgtcatcgtc  
 180  
 gagcgatgg acaagattaa ggagtcgggt atcgcgtcca gacgctgctt cgtcgtcgag  
 240  
 acgatggggtc gtgactgcgg atacctcgcg ttgatgtcgg gtatcgcagc tggcgctgag  
 300  
 cggatctata ccaacgagga cggatatctc ctggacgac tagccaacga cgtccattgg  
 360  
 ttgcgggagt c  
 371

&lt;210&gt; 394

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

Xaa Ala Leu Leu Val Ile Gly Gly Tyr Ser Ala Tyr Glu Gly Ile Tyr  
 1 5 10 15  
 Thr Met Met Thr Glu Arg Asp Arg Tyr Pro Ala Phe Arg Ile Pro Thr  
 20 25 30  
 Val Cys Ile Pro Ala Ser Ile Asp Asn Asn Leu Pro Gly Ser Glu Leu  
 35 40 45  
 Ser Ile Gly Thr Asp Thr Ala Leu Asn Val Ile Val Glu Ala Met Asp  
 50 55 60  
 Lys Ile Lys Glu Ser Gly Ile Ala Ser Arg Arg Cys Phe Val Val Glu  
 65 70 75 80  
 Thr Met Gly Arg Asp Cys Gly Tyr Leu Ala Leu Met Ser Gly Ile Ala  
 85 90 95  
 Ala Gly Ala Glu Arg Ile Tyr Thr Asn Glu Asp Gly Ile Ser Leu Asp  
 100 105 110  
 Asp Leu Ala Asn Asp Val His Trp Leu Arg Glu  
 115 120



<210> 395  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 395  
 gaattctagt tgggagattc attgaccaga cttttggaat aaacactagt catcatgcta  
 60  
 gcgacaggtg gtcttgtgca tggtagaaag gcagtccaag cctatgtctc tgaaacctgc  
 120  
 tctcatttct gttttctact ttacgattta tggtatctca tactcccat gttgcctgtt  
 180  
 ctccagtttt ttacttgtg ttatttccat tcttctatcc ctgctcaatt tctgcctcag  
 240  
 ggcagaattg tgccaacag ctcttaaag cagcgcagaa actgtgatgt taaaaacatc  
 300  
 ttgttatccg gccccaaaac atgttgcctc tggtaactct tactgggttg t  
 351

<210> 396  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 396  
 Met Val Glu Arg Gln Ser Lys Pro Met Ser Leu Lys Pro Ala Leu Ile  
 1 5 10 15  
 Ser Val Phe Tyr Phe Thr Ile Tyr Val Ile Ser Tyr Ser Pro Cys Cys  
 20 25 30  
 Leu Phe Ser Ser Phe Phe Thr Cys Val Ile Ser Ile Leu Leu Phe Leu  
 35 40 45  
 Leu Asn Phe Cys Leu Arg Ala Glu Leu Cys Pro Thr Ala Leu Lys Cys  
 50 55 60  
 Ser Ala Glu Thr Val Met Leu Lys Thr Ser Cys Tyr Pro Ala Pro Lys  
 65 70 75 80  
 His Val Val Leu Gly Asn Ser Tyr Trp Phe  
 85 90

<210> 397  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 397  
 gccgtcatta aagagatcac cctctcctc caacctggtg atgtcctcgt cgaagggtggt  
 60  
 aatgcttatt ttggtgatac cgcgcccggt gaggaggaaa tacgtccac cggcattcac  
 120  
 tatgttggtg ctggcatctc cgggtggggga gtcggggccc tgagggtccc atcaattatg  
 180  
 cctggcgggg ttaaggaatc ttacgaaatc atcggaccgg tcttagaaaa aatctccgcc  
 240  
 cacgtcgacg gtgaaccctg ctgcgcatgg atgggtactg acggcgccgg acacttcgtc  
 300

aagatggtcc ataatggcat cgagtacgcc gatatgcagt tcattggcga ggcgcccttc  
 360  
 ctttttgcgn tgcccgcggg ttgaccaat gctgaggccg ccgatgcctt cgagtcgtgg  
 420  
 aaccatggcg acctcaattc ctacctcgtc gaaatcactt ctcgggtact gcgtgccaag  
 480  
 gat  
 483

<210> 398  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 398  
 Ala Val Ile Lys Glu Ile Thr Pro Leu Leu Gln Pro Gly Asp Val Leu  
 1 5 10 15  
 Val Asp Gly Gly Asn Ala Tyr Phe Gly Asp Thr Arg Arg Arg Glu Glu  
 20 25 30  
 Glu Ile Arg Pro Thr Gly Ile His Tyr Val Gly Thr Gly Ile Ser Gly  
 35 40 45  
 Gly Gly Val Gly Ala Leu Arg Val Pro Ser Ile Met Pro Gly Gly Val  
 50 55 60  
 Lys Glu Ser Tyr Glu Ile Ile Gly Pro Val Leu Glu Lys Ile Ser Ala  
 65 70 75 80  
 His Val Asp Gly Glu Pro Cys Cys Ala Trp Met Gly Thr Asp Gly Ala  
 85 90 95  
 Gly His Phe Val Lys Met Val His Asn Gly Ile Glu Tyr Ala Asp Met  
 100 105 110  
 Gln Phe Ile Gly Glu Ala Pro Phe Leu Phe Ala Xaa Pro Ala Gly Leu  
 115 120 125  
 Thr Asn Ala Glu Ala Ala Asp Ala Phe Glu Ser Trp Asn His Gly Asp  
 130 135 140  
 Leu Asn Ser Tyr Leu Val Glu Ile Thr Ser Arg Val Leu Arg Ala Lys  
 145 150 155 160  
 Asp

<210> 399  
 <211> 314  
 <212> DNA  
 <213> Homo sapiens

<400> 399  
 nngggaatga agaccaccca gcccttcctt tectcaaate ttctccaggc ttctgtgcat  
 60  
 ggctcatcca cccatccact cattcaccca tctatccatc cactcatcca cccatccagt  
 120  
 cattcactca ttgtccatc cactcatgta cccatccact cattcgccca tttatccatc  
 180  
 cactcaacca tccactcatc cacccatcca nctcatcatc cgtccagtca cccatctatc  
 240  
 caccatgta tccatccact catccaccca tccactcatc tgtccatcca cttatccacc  
 300

catctactca ccca  
314

<210> 400

<211> 104

<212> PRT

<213> Homo sapiens

<400> 400

Xaa Gly Met Lys Thr Thr Gln Pro Phe Leu Ser Ser Asn Leu Leu Gln  
1 5 10 15  
Ala Ser Val His Gly Ser Ser Thr His Pro Leu Ile His Pro Ser Ile  
20 25 30  
His Pro Leu Ile His Pro Ser Ser His Ser Leu Ile Cys Pro Ser Thr  
35 40 45  
His Val Pro Ile His Ser Phe Ala His Leu Ser Ile His Ser Thr Ile  
50 55 60  
His Ser Ser Thr His Pro Xaa His His Pro Ser Ser His Pro Ser Ile  
65 70 75 80  
His Pro Cys Ile His Pro Leu Ile His Pro Ser Thr His Leu Ser Ile  
85 90 95  
His Leu Ser Thr His Leu Leu Thr  
100

<210> 401

<211> 2165

<212> DNA

<213> Homo sapiens

<400> 401

gagaaaatgg aactacctgt atataaatta ggtgagcaaa cagtgatata ggtagtttta  
60  
agaagcaaat atatacagtc aatttaacag tgtttacttc tctggattgt ttaatgggtg  
120  
caaaatgaaa gatctattga agtttactta tacattgcat tgattgaacc ttggagagtt  
180  
ttatgaaaaa gaggggcac ccttgccac tgtttgccag tcttccttgc ccttccttt  
240  
gaaatgcctg cctctttttt gccagattg tttcctgacc atccgaactc agatgggggc  
300  
ctctaagttc ttcttgata ttcacaaatc cttcacaag gccacgtgc gaagtgaatg  
360  
atctggaggt gcctgggcat ctgtgttga agggagtcaa gactcaccag ccagtcagtt  
420  
tgtgggctac agttgtccca caaaaatcag gcatgttcac ctcccctctg ggcccctaca  
480  
gctgggactg atcatagcct cagattagaa gaaatactga cttctaactc tataagccag  
540  
cactcctggg taaggagtga agctctgttg gccatgccgc tttggactgc tgggcagagc  
600  
tgagcctaca gttttgtact ggggtgcacg gatgacagct gggaagatgg aaaggcagct  
660  
tgaggattta tagcagctaa agggtaaatg ctgttatgca aaaggtcccc atatgaactt  
720

cctacaggtg tagccgcagc caagtgtctg tacagctgct gagaatttgt cggatgatga  
780  
aaaattcctc tttgcatcac aagcgagtgg aaagccaggg gctgcatgag tggagaaagc  
840  
acagtctggt ttttcaagta ctgcagagaa tgagaatacc cagccggggag cctggagtgt  
900  
aggcccaggt tacacaggct cccggaatac agacctggga agatagggga ggagagggga  
960  
agcttgtggc cttttgatcc gccccggaa tgcccaccgt gcgctgcttt gctgccttca  
1020  
tctcctgctc agaggccttc tccttcccag agacctcctt ggatgggtct aaggagaca  
1080  
ctgccccggc ctttttccct gcaatcacia ggtccaaatc ctccaggctg cgcttgatcg  
1140  
gccgcggcgc cccaatgttc tacgggtcca ttttccggtg caggattggg tggaccatgc  
1200  
cttccatctt cctgaaatcc tccagtctca catggtgagg ttttctgat cttgaaagcg  
1260  
attcagggta ttttttaggg cctgacatgg tcatgggtga taccgacag gctttgggg  
1320  
gacagtctcg actctggctg cctaagacct ggaactggga gatgcctttg ctctcctggg  
1380  
gcctgtggtt ggaatgagcc agggccagga ccttgccggt aggtttgtgc gggttcttgg  
1440  
gaaggctcag atctgtagcc tgatcatccg taggggcttc tgctgccgcc gactttttgt  
1500  
cttgacagtg cagggacgtg agataattta catggagctt ttcttggtgt ctgtgggaag  
1560  
gaaaagaact gttttccgat tccctgtaca tgccctgga agggatattg gatgtctgtt  
1620  
cattatgaag atgggtgctg gtgtgtctgt agaggctatg gagatgaggg gacgagtaga  
1680  
agtcagccag gaagctagcc atgtgggaat gggggagggc ccttttctct aagagtttat  
1740  
ccttgccctc ctgaatttct tgcttcagga cgtaggagtc agcaaggggg ttaaggtgat  
1800  
gcttgagaa gctgcagcgg tggggatctg atcgactcag tttctcatgc ttaaagatgt  
1860  
cattgatggt ctttctctct tccgagggct tgcttctgaa actctggacg tgctgaatca  
1920  
ctgatggcgg gctgaccgcc atatggctcag tgctttggcc atgggtgggtc tgggacaaac  
1980  
tggaacacaa gtcatcccta gcaatcagtt tctttttgct gatcaaaggg ggtggggagc  
2040  
cataagggta gctgctggag aggtggccc cactcacttg ggacaaaagc ttttcttgg  
2100  
ccagtgggga catcatgcct ggggtgcccc tagagtagag caggggctg taattaagtc  
2160  
catgg  
2165

&lt;210&gt; 402

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 402

Glu Tyr Pro Ala Gly Ser Leu Glu Leu Arg Pro Glu Leu His Arg Leu  
 1 5 10 15  
 Pro Glu Tyr Arg Pro Gly Lys Ile Gly Glu Glu Arg Gly Ser Leu Trp  
 20 25 30  
 Pro Phe Asp Pro Pro Pro Glu Cys Pro Pro Cys Ala Ala Leu Leu Pro  
 35 40 45  
 Ser Ser Pro Ala Gln Arg Pro Ser Pro Ser Gln Arg Pro Pro Trp Met  
 50 55 60  
 Gly Leu Arg Glu Thr Leu Pro Gly Pro Phe Ser Leu Gln Ser Gln Gly  
 65 70 75 80  
 Pro Asn Pro Pro Gly Cys Ala  
 85

&lt;210&gt; 403

&lt;211&gt; 369

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 403

cccatgggtg tgtcccagga cggcgatcatg aagcgatcagg taaatgacaa ggaaacgggc  
 60  
 ggcacttgt tgaatacac gacgcaagtg tctgtcgact cgaacgccga actcgatccag  
 120  
 ccttcgcca cgatcgacga caacctcgtg cctgtccaga tgatcttttg cttcaagcag  
 180  
 cgcaacgca aaaagatcaa tagccaccgc tgggtatttc atgcactggg ccgcatgcta  
 240  
 cagcccgaca tggcgtctt ggtggacgac gccacgaagc ccggccacct cgcctatac  
 300  
 catctatggc aggcattcta tcaccgacct accttggggc gtgcttgagg cgaaattcat  
 360  
 gctatgatc  
 369

&lt;210&gt; 404

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 404

Pro Met Gly Val Ser Gln Asp Gly Val Met Lys Arg Gln Val Asn Asp  
 1 5 10 15  
 Lys Glu Thr Val Ala His Leu Phe Glu Tyr Thr Thr Gln Val Ser Val  
 20 25 30  
 Asp Ser Thr Pro Gln Leu Val Gln Pro Ser Pro Thr Ser His Asp Asn  
 35 40 45  
 Leu Val Pro Val Gln Met Ile Phe Cys Phe Lys Gln Arg Asn Ala Lys  
 50 55 60  
 Lys Ile Asn Ser His Arg Trp Val Phe His Ala Leu Gly Arg Met Leu  
 65 70 75 80  
 Gln Pro Asp Met Val Val Leu Val Asp Val Gly Thr Lys Pro Gly His

85 90 95  
 Leu Ala Leu Tyr His Leu Trp Gln Ala Phe Tyr His Arg Pro Thr Leu  
 100 105 110  
 Gly Gly Ala Cys Gly Glu Ile His Ala Met Ile  
 115 120

<210> 405  
 <211> 840  
 <212> DNA  
 <213> Homo sapiens

<400> 405  
 gaattcccg gcaccagctc gaagctggag cactttgtgt ctatcctgct gaagtgcttc  
 60  
 gactcgccct ggaccacgag ggcctgtcg gagacagtgg tggaggagag cgaccccaag  
 120  
 ccggccttca gcaagatgaa tgggtccatg gacaaaaagt catcgaccgt cagtgaggac  
 180  
 gtggaggcca ccgtgcccac gctgcagcgg accaagtcac ggatcgagca gggatatcgtg  
 240  
 gaccgctcag agacgggctg gctggacaag aaggaggggg agcaagccaa ggcgctgttt  
 300  
 gagaagggtga agaagttccg gacccatgtg gaggaggggg acattgtgta ccgcctctac  
 360  
 atgcggcaga ccatcatcaa ggtgatcaag ttcatcctca tcatctgcta caccgtctac  
 420  
 tacgtgcaca acatcaagtt cgacgtggac tgcaccgtgg acattgagag cctgacgggc  
 480  
 taccgcacct accgctgtgc ccacccctg gccacactct tcaagatcct ggcgctcttc  
 540  
 tacatcagcc tagtcatctt ctacggcctc atctgcatgt atacactgtg gtggatgcta  
 600  
 cggcgctccc tcaagaagta ctggtttgag tcgatccgtg aggagagcag ctacagcgac  
 660  
 atccccgacg tcaagaacga ctgcgcttc atgctgcacc tcattgacca atacgacccg  
 720  
 ctctactcca agcgcttcgc cgtcttcctg tcggagggtga gtgagaacaa gctgcggcag  
 780  
 ctgaacctca acaacgagtg gacgctggac aagctccggt acggagagaa gacaacgcgt  
 840

<210> 406  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 406  
 Leu Ile Cys Met Tyr Thr Leu Trp Trp Met Leu Arg Arg Ser Leu Lys  
 1 5 10 15  
 Lys Tyr Ser Phe Glu Ser Ile Arg Glu Glu Ser Ser Tyr Ser Asp Ile  
 20 25 30  
 Pro Asp Val Lys Asn Asp Phe Ala Phe Met Leu His Leu Ile Asp Gln  
 35 40 45  
 Tyr Asp Pro Leu Tyr Ser Lys Arg Phe Ala Val Phe Leu Ser Glu Val

50		55		60
Ser Glu Asn Lys Leu Arg Gln Leu Asn Leu Asn Asn Glu Trp Thr Leu				
65		70		75
Asp Lys Leu Arg Tyr Gly Glu Lys Thr Thr Arg				80
	85		90	

<210> 407  
 <211> 535  
 <212> DNA  
 <213> Homo sapiens

<400> 407  
 gcctattgta ccagctctcc agggctgggg acttgctaga gcagggttcc cagtgtcccc  
 60  
 aggtcttact ttgctctgcc tggctctcagg gtgtagggga tggagagctg gactttccagc  
 120  
 ctgcttcttg gctgtctagg ggccaggggc tcgggacaca gagctcctgg aggccgagca  
 180  
 caagccttgg gcagaggtga ggcagagctc tgactgtttc attcgactac gttgccaagg  
 240  
 agatgctcgc tcggagtggg tgctctgggt ctgggattcc aaaccaagct gccttctctg  
 300  
 atgtggcctt agtgcctctg gcggatgtac cttggtctg cctggaccct ctctctcttc  
 360  
 caggcctctg tcccaccagg atgatgcta tccagagctc attgtcctct cccacttctc  
 420  
 ccccgagctt cccattccgt gtctctctgg agggcccatc atcatcctgg tggaggtgtt  
 480  
 gcaactgagga ccacagcagc cctcgcatc ccacgggcaa aggggtatgt gtagg  
 535

<210> 408  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 408  
 Met Leu Ala Arg Ser Gly Cys Ser Gly Ser Gly Ile Pro Asn Gln Ala  
 1 5 10 15  
 Ala Phe Ser Asp Val Ala Leu Val Leu Trp Ala Asp Val Pro Trp Leu  
 20 25 30  
 Cys Leu Asp Pro Leu Ser Leu Pro Gly Leu Cys Pro Thr Arg Met Met  
 35 40 45  
 Pro Ile Gln Ser Ser Leu Ser Ser Pro Thr Ser Ser Pro Ser Phe Pro  
 50 55 60  
 Phe Arg Val Ser Leu Glu Gly Pro Ser Ser Ser Trp Trp Arg Cys Cys  
 65 70 75 80  
 Thr Glu Asp His Ser Ser Pro Arg Ile Pro Thr Gly Lys Gly Val Cys  
 85 90 95  
 Val

<210> 409  
 <211> 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

ngtgtcatgg gtgtctatac cagcgatgag gccaaagactg ccaagacttt tggatttgggt  
 60  
 ggacttccga ttacgactaa tatttctctt gccacaact tcaatatgga tgaaatttct  
 120  
 gatattgtct tccgtgtcaa tgataccagt ttgacaccaa ctgtgggacc agaattagct  
 180  
 agaaaattga ccgaaattgc tggctctcag caaggggagt atcaggtgtc agatgcgact  
 240  
 gcagccttcc aagaagtgca acaattgttc ggctttataa ctacgattat tagtgccatt  
 300  
 gcaggaattt ccctttttgt tggagggact ggtgttatga acatcatgct ggtttcgggtg  
 360  
 acggagcgta cgcgt  
 375

&lt;210&gt; 410

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

Xaa	Val	Met	Gly	Val	Tyr	Thr	Ser	Asp	Glu	Ala	Lys	Thr	Ala	Lys	Thr
1				5					10					15	
Phe	Gly	Ile	Gly	Gly	Leu	Pro	Ile	Thr	Thr	Asn	Ile	Ser	Leu	Ala	Asn
			20					25					30		
Asn	Phe	Asn	Met	Asp	Glu	Ile	Ser	Asp	Ile	Val	Phe	Arg	Val	Asn	Asp
		35					40				45				
Thr	Ser	Leu	Thr	Pro	Thr	Val	Gly	Pro	Glu	Leu	Ala	Arg	Lys	Leu	Thr
		50				55					60				
Glu	Ile	Ala	Gly	Leu	Gln	Gln	Gly	Glu	Tyr	Gln	Val	Ser	Asp	Ala	Thr
65					70					75				80	
Ala	Ala	Phe	Gln	Glu	Val	Gln	Gln	Leu	Phe	Gly	Phe	Ile	Thr	Thr	Ile
			85					90					95		
Ile	Ser	Ala	Ile	Ala	Gly	Ile	Ser	Leu	Phe	Val	Gly	Gly	Thr	Gly	Val
		100						105					110		
Met	Asn	Ile	Met	Leu	Val	Ser	Val	Thr	Glu	Arg	Thr	Arg			
		115					120					125			

&lt;210&gt; 411

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

ccacatactt caccctcctc accccctcca cctactccac cacctggcag tcgccatcga  
 60  
 ggatgggacg caactccacg tccacatgct ccggaccacg cggcgtgtgg tggatgtgca  
 120  
 gcacgcggtc ggggccctt gagctcgaag gcgcggcgca tcgggcagtg ctgcgccggc  
 180



tggtcgcagg gcacgtcgta ctggtgcgag acgcggaagc acttgtggcc gatgtaggcg  
 240  
 cgatcggctg tcccgaactg gcgctgatag gccgtgtaca caacacaaac tgttgtactc  
 300  
 ccggtccacc acgatcatgg gctgggactc gtgttccagg tggggggcca gggcttgggc  
 360  
 ctgcggtgag cgcgtggggt ggatggggca tagcgtcggg gaggaggtg  
 409

<210> 412  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 412  
 Met Pro His Pro Pro His Ala Leu Thr Ala Gly Pro Ser Pro Gly Pro  
 1 5 10 15  
 Pro Pro Gly Thr Arg Val Pro Ala His Asp Arg Gly Gly Pro Gly Val  
 20 25 30  
 Gln Gln Phe Val Leu Cys Thr Arg Pro Ile Ser Ala Ser Ser Gly Gln  
 35 40 45  
 Pro Ile Ala Pro Thr Ser Ala Thr Ser Ala Ser Ala Ser Arg Thr Ser  
 50 55 60  
 Thr Thr Cys Pro Ala Thr Arg Pro Ala Ser Thr Ala Arg Cys Ala Ala  
 65 70 75 80  
 Pro Ser Ser Ser Arg Gly Pro Asp Arg Val Leu His Ile His His Thr  
 85 90 95  
 Pro Arg Gly Pro Glu His Val Asp Val Glu Leu Arg Pro Ile Leu Asp  
 100 105 110  
 Gly Asp Cys Gln Val Val Glu  
 115

<210> 413  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 413  
 ccgggcatcc caccaccggg tgtcatgaac caagtagtgg cccctatggg agggactcca  
 60  
 gcaccgggtg gaagtccata tggacaacag gtgggagttt tggggcctcc agggcagcag  
 120  
 gcaccacctc catatcccgg cccacatcca gctggacccc ctgtcataca gcagccaaca  
 180  
 acacccatgt ttgtagctcc cccccaaaag acccagcggc ttcttcactc agaggcctac  
 240  
 ctgaaataca ttgaaggact cagtgcggag tccaacagca ttagcaagtg ggatcagaca  
 300  
 ctggcagctc ggagacgcga cgtccatttg tcgaaagaac aggagagccg cctaccc  
 357

<210> 414  
 <211> 119  
 <212> PRT

<213> Homo sapiens

<400> 414

```

Pro Gly Ile Pro Pro Pro Gly Val Met Asn Gln Val Val Ala Pro Met
 1           5           10           15
Val Gly Thr Pro Ala Pro Gly Gly Ser Pro Tyr Gly Gln Gln Val Gly
      20           25           30
Val Leu Gly Pro Pro Gly Gln Gln Ala Pro Pro Pro Tyr Pro Gly Pro
      35           40           45
His Pro Ala Gly Pro Pro Val Ile Gln Gln Pro Thr Thr Pro Met Phe
      50           55           60
Val Ala Pro Pro Pro Lys Thr Gln Arg Leu Leu His Ser Glu Ala Tyr
      65           70           75           80
Leu Lys Tyr Ile Glu Gly Leu Ser Ala Glu Ser Asn Ser Ile Ser Lys
      85           90           95
Trp Asp Gln Thr Leu Ala Ala Arg Arg Arg Asp Val His Leu Ser Lys
      100          105          110
Glu Gln Glu Ser Arg Leu Pro
      115

```

<210> 415

<211> 332

<212> DNA

<213> Homo sapiens

<400> 415

```

tctagagcca acttggttat cgtaatgaat agagagacta catctatatc aattattacg
60
ctctatagta atcatgaagc ttgggttata tgtatgacaa aaattgcaga aaaatcgaaa
120
caagaatatg gcgacttact aaaagaaaaa gaccatttac aagatatgga acagcttgag
180
atgactatcg tctcgatcca tacgccgtat ccgtccattg tcagaattca aggaaaaatc
240
aacacattac agccagagct ttggcaagct cccaatttag caattcggtt aattgtgagc
300
aatccgccag agggacaacc catctcacgc gt
332

```

<210> 416

<211> 102

<212> PRT

<213> Homo sapiens

<400> 416

```

Met Asn Arg Glu Thr Thr Ser Ile Ser Ile Ile Thr Leu Tyr Ser Asn
 1           5           10           15
His Glu Ala Trp Val Ile Cys Met Thr Lys Ile Ala Glu Lys Ser Lys
      20           25           30
Gln Glu Tyr Gly Asp Leu Leu Lys Glu Lys Asp His Leu Gln Asp Met
      35           40           45
Glu Gln Leu Glu Met Thr Ile Val Ser Ile His Thr Pro Tyr Pro Ser
      50           55           60
Ile Val Arg Ile Gln Gly Lys Ile Asn Thr Leu Gln Pro Glu Leu Trp

```



130                      135                      140  
 Gly Pro Arg Ala Leu Asn Ala Asn Gly Ile Lys Val Leu Ala Asp Pro  
 145                      150                      155                      160  
 Arg

<210> 419  
 <211> 797  
 <212> DNA  
 <213> Homo sapiens

<400> 419  
 atttcacccc aggaaaacca gtaaggacca atgattaagc ccaagggttg gtaccgagtt  
 60  
 cggatccata agtaccggcc gccaggggtg ctggaatttg ggctcccccc ggtgaaaata  
 120  
 tccatgcagc cgcgttgtct taggtagaaa agggagactg ggggtgggtg ggctgagctc  
 180  
 aagcccctgc ctacatactt tagtagtaac gactcccgat ctgcatccaa cacatttacc  
 240  
 gaacttctag taagcgcccc ccgctgcaag cgaaagcact cccctgccaa gaaacagatc  
 300  
 ttttccactt aaaattccca aactcagacc ttccactttt tactgaacaa aaagcgtgta  
 360  
 catgatctga agggttgaca tgacattttc taaattgggc gaatcaggaa gaggttgatg  
 420  
 aaaatccttg acgttttctg gggataggac atttgtgtgt gataacgttc ttaagtcgaa  
 480  
 tttcagtgtg gcagtgcacg cagattcttc attgggtgta gtgtatttcc atacggtatg  
 540  
 tattagtaca agaaatagtg ttccctttga cactcgaacc caaggagtgg tccgaggctt  
 600  
 tttgaggcaa cgtaggatca atgtctctga agcagatttg gtgaaggatg caggtctcat  
 660  
 aatttacaga gcaatcacag ccttctttga aacggagaaa ttagattcta tgaaattttg  
 720  
 tcagtgcaga tagatatgat gtggagaaac ggggaaaatt gagtacaaaa agatgaggct  
 780  
 tgaatgatgg ctggcca  
 797

<210> 420  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 420  
 Met Arg Pro Ala Ser Phe Thr Lys Ser Ala Ser Glu Thr Leu Ile Leu  
 1                      5                      10                      15  
 Arg Cys Leu Lys Lys Pro Arg Thr Thr Pro Trp Val Arg Val Ser Lys  
 20                      25                      30  
 Gly Thr Leu Phe Leu Val Leu Ile His Thr Val Trp Lys Tyr Thr Asn  
 35                      40                      45  
 Thr Asn Glu Glu Ser Ala Cys Thr Ala Thr Leu Lys Phe Asp Leu Arg

50		55		60											
Thr	Leu	Ser	His	Thr	Asn	Val	Leu	Ser	Pro	Glu	Asn	Val	Lys	Asp	Phe
65					70					75					80
His	Gln	Pro	Leu	Pro	Asp	Ser	Pro	Asn	Leu	Glu	Asn	Val	Met	Ser	Thr
			85					90						95	
Leu	Gln	Ile	Met	Tyr	Thr	Leu	Phe	Val	Gln						
			100					105							

<210> 421  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 421  
 ggatccacca tgatggagcc caccacacca tcctcagtc acctgctgca gcttctccat  
 60  
 aacccaacac aggtcaatct tgtctcccta aacacaccat gtgctctcat gctgccatgg  
 120  
 tttgectggg gccctctcta cctcctctgc tttctggaga acccttgac tcctcccaag  
 180  
 ccttcaagtt ggaaagtga cagtcagcat atgtctctag ctgagccctt actgctgga  
 240  
 ttcataaga ttggttact gtcagcccct gaccagaacg tgtgttttag gaaagcagga  
 300  
 accaagtctt accaatgtct gtagtcccag cctccaccct ggcatacagt aggtgctcat  
 360  
 tgaatgtggg agggaaagag gagacacatg gaagggaatg tcattc  
 406

<210> 422  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 422
Met Met Glu Pro Thr His Pro Ser Ser Val His Leu Leu Gln Leu Leu
1 5 10 15
His Asn Pro Thr Gln Val Asn Leu Val Ser Leu Asn Thr Pro Cys Ala
20 25 30
Leu Met Leu Pro Trp Phe Ala Trp Gly Pro Leu Tyr Leu Leu Cys Phe
35 40 45
Leu Glu Asn Pro Cys Thr Pro Pro Lys Pro Ser Ser Trp Lys Val Asn
50 55 60
Ser Gln His Met Ser Leu Ala Gln Pro Leu Leu Arg Gly Phe Met Lys
65 70 75 80
Ile Gly Ser Leu Ser Ala Pro Asp Gln Asn Val Cys Phe Arg Lys Ala
85 90 95
Gly Thr Lys Ser Tyr Gln Cys Leu
100

<210> 423  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 423  
 ngccacccta cgcctcgccct gcaatggcaa cttcagatcc ccggtggcac cgtagtctta  
 60  
 gagccaccgg ttctgagcgg ggaggacgac ggggttgggg cggaggaagg agaggagaa  
 120  
 ggagatgggg atttgctgac gcagacccaa gcccaaacgc cgactccagc acccgcttgg  
 180  
 ccggcgcccc cagccacacc gcgcttcctg gccctcgcaa atggctccct gttggtgccc  
 240  
 ctctgagtg ccaaggaggc gggcgtctac acttgccgtg cacacaatga gctgggcgcc  
 300  
 aactctacgt caatacgcgt ggcggtggca gcaaccgggc ccccaaaaca cgcgcctggc  
 360  
 gccgggggag aaccgacgg acaggccccg acctctgagc gcaagtccac agccaagggc  
 420  
 cggggcaaca gcgtcctgcc ttccaaaccc gagggcaaaa tcaaaggcca aggcctggcc  
 480  
 aaggtcagca ttctcgggga gaccgagacg gagccggagg aggacacaag tgaggagag  
 540  
 gaggccgaag accagatcct cgcggacccg gcggaggagc agcgctgtgg caacggggac  
 600  
 ccctctcggt acgtttctaa ccacgcgt  
 628

<210> 424  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 424  
 Xaa His Pro Thr Pro Arg Leu Gln Trp Gln Leu Gln Ile Pro Gly Gly  
 1 5 10 15  
 Thr Val Val Leu Glu Pro Pro Val Leu Ser Gly Glu Asp Asp Gly Val  
 20 25 30  
 Gly Ala Glu Gly Glu Gly Glu Gly Asp Gly Asp Leu Leu Thr Gln  
 35 40 45  
 Thr Gln Ala Gln Thr Pro Thr Pro Ala Pro Ala Trp Pro Ala Pro Pro  
 50 55 60  
 Ala Thr Pro Arg Phe Leu Ala Leu Ala Asn Gly Ser Leu Leu Val Pro  
 65 70 75 80  
 Leu Leu Ser Ala Lys Glu Ala Gly Val Tyr Thr Cys Arg Ala His Asn  
 85 90 95  
 Glu Leu Gly Ala Asn Ser Thr Ser Ile Arg Val Ala Val Ala Ala Thr  
 100 105 110  
 Gly Pro Pro Lys His Ala Pro Gly Ala Gly Gly Glu Pro Asp Gly Gln  
 115 120 125  
 Ala Pro Thr Ser Glu Arg Lys Ser Thr Ala Lys Gly Arg Gly Asn Ser  
 130 135 140  
 Val Leu Pro Ser Lys Pro Glu Gly Lys Ile Lys Gly Gln Gly Leu Ala  
 145 150 155 160  
 Lys Val Ser Ile Leu Gly Glu Thr Glu Thr Glu Pro Glu Glu Asp Thr  
 165 170 175  
 Ser Glu Gly Glu Glu Ala Glu Asp Gln Ile Leu Ala Asp Pro Ala Glu

180 185 190  
 Glu Gln Arg Cys Gly Asn Gly Asp Pro Ser Arg Tyr Val Ser Asn His  
 195 200 205  
 Ala

<210> 425  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 425  
 ccggccgctcg aagactttga ggacgatgta gctcgcagcg cagcgttacg agccctggag  
 60  
 tacgtggatt tgacccagg cactnaagtg cgcgtcatcg ccattgacac cgtgttccta  
 120  
 ggatcgtgca cgaatggccg tgaggactta cggctggctg ctgaggttcc caaaggacga  
 180  
 catatcgag cgggcacccg gatgctcgtc gccctggat ctgctcgtgt ccgtctgcag  
 240  
 gctatggagg aaggcctcga cgagatcggg tcccggtttg ctgacatctt tcgcaataac  
 300  
 tctgcgaaca atggcttggt actggctcag gttgacccg aggtcgtcga agagttgtgg  
 360  
 gactttgccg agcagcatcc tgggtgagcag ctcaccgtct ccctcgagaa tcggacgac  
 420  
 aaccttcggg gtcgcacgac ctaccggttc catattgatg acgtcacgcg t  
 471

<210> 426  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 426  
 Pro Ala Val Glu Asp Phe Glu Asp Asp Val Ala Arg Ser Ala Ala Leu  
 1 5 10 15  
 Arg Ala Leu Glu Tyr Val Asp Leu Thr Pro Gly Thr Xaa Val Arg Val  
 20 25 30  
 Ile Ala Ile Asp Thr Val Phe Leu Gly Ser Cys Thr Asn Gly Arg Glu  
 35 40 45  
 Asp Leu Arg Leu Ala Ala Glu Val Pro Lys Gly Arg His Ile Ala Ala  
 50 55 60  
 Gly Thr Arg Met Leu Val Ala Pro Gly Ser Ala Arg Val Arg Leu Gln  
 65 70 75 80  
 Ala Met Glu Glu Gly Leu Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile  
 85 90 95  
 Phe Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp  
 100 105 110  
 Pro Glu Val Val Glu Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly  
 115 120 125  
 Glu Gln Leu Thr Val Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly  
 130 135 140  
 Arg Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg

145

150

155

&lt;210&gt; 427

&lt;211&gt; 546

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 427

ctagcggtag tagaaggtat gcagtttgat cgcggctact tgtctccgta tttcatcaac  
60  
aatcaagaaa caatgaatgc agagctagaa aaccatttta ttcttcttgt tgataagaaa  
120  
atttctaata tccgtgactt gctaccaatt ttggaagggtg ttgctaaagc atcgcgcccc  
180  
ttgttgatca ttgcggaaga cgttgaaggc gaagcgttgg caaccttgggt tgtaaacact  
240  
atgcgcggca tcgtaaaagt agcggcagcg aaagcggccag gttttggtga tcgccgtaaa  
300  
gcaatgcttc aagacattgc tgtgctaacg ggttcaactg ttatttcaga agaaattggc  
360  
attaagcttg aagaagcgac aattgaacag ttgggtacag cgaagcgcgt tacattgaca  
420  
aaagaaagta caacgattgt tgatgggtgcg ggtgttgag ctaatattac tggctgtgtt  
480  
gagcaaattc gtgcagaaat tgctaactct tcttctggct acgataaaga gaaattgcaa  
540  
gaacgc  
546

&lt;210&gt; 428

&lt;211&gt; 182

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 428

Leu Ala Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro  
1 5 10 15  
Tyr Phe Ile Asn Asn Gln Glu Thr Met Asn Ala Glu Leu Glu Asn Pro  
20 25 30  
Phe Ile Leu Leu Val Asp Lys Lys Ile Ser Asn Ile Arg Asp Leu Leu  
35 40 45  
Pro Ile Leu Glu Gly Val Ala Lys Ala Ser Arg Pro Leu Leu Ile Ile  
50 55 60  
Ala Glu Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr  
65 70 75 80  
Met Arg Gly Ile Val Lys Val Ala Ala Lys Ala Pro Gly Phe Gly  
85 90 95  
Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Val Leu Thr Gly Ser  
100 105 110  
Thr Val Ile Ser Glu Glu Ile Gly Ile Lys Leu Glu Glu Ala Thr Ile  
115 120 125  
Glu Gln Leu Gly Thr Ala Lys Arg Val Thr Leu Thr Lys Glu Ser Thr  
130 135 140  
Thr Ile Val Asp Gly Ala Gly Val Ala Ala Asn Ile Thr Gly Arg Val





<210> 431  
 <211> 192  
 <212> DNA  
 <213> Homo sapiens

<400> 431  
 ctagccatcc accagcgtac acacacggga gagaggccct acactggcct cgggtgcaac  
 60  
 cgccgcttcc gccagcgcac ggccctcgtc atccaccagc gcatccacac gggcgagaag  
 120  
 cctnaccggt gcccggactg cgagcggcgc ttctctctct cctctcgctt ggtcagtcac  
 180  
 cggcgtgtgc ac  
 192

<210> 432  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 432  
 Leu Ala Ile His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Thr Gly  
 1 5 10 15  
 Leu Gly Cys Asn Arg Arg Phe Arg Gln Arg Thr Ala Leu Val Ile His  
 20 25 30  
 Gln Arg Ile His Thr Gly Glu Lys Pro Xaa Pro Cys Pro Asp Cys Glu  
 35 40 45  
 Arg Arg Phe Ser Ser Ser Ser Arg Leu Val Ser His Arg Arg Val His  
 50 55 60

<210> 433  
 <211> 635  
 <212> DNA  
 <213> Homo sapiens

<400> 433  
 nngccggcgg ctgcgttggg atacgacgtc gctgcgattg ggcgtagta tcttttggtac  
 60  
 ctcatggagg agcgtggcgc gtatgcggag gccgccgcgc tcatgccgct gctgctccgg  
 120  
 accgaccgag gcgcgtggga cacgtttgtg tgctgctacc tcgagcggca ccaaagggat  
 180  
 gcgatactcc cgcacattcc gacgcaggac cccagctga gtgagatggt gtacgatctc  
 240  
 gtgctggtgc atctgctgca gcacgatccc acgcagctgt tggcgacgct ccgcgcatgg  
 300  
 ccgagtcaca tctactcgaa gcaggcgggtg gctgcggcga tcggcgatca cgcacgaacc  
 360  
 agccgcacgc tgctcgagtg cctcgcacag ctgtacatgg ccgcacatca gcccggcaag  
 420  
 gctctgacat actacatgcg cctgcgtgat ccatgcgtgt ttgatctcat tcgcgagtac  
 480  
 gatctgctga tcgatgtgca gcaccacatc ggcacgctcg tcgagctcga tcaggaatgc  
 540

gccggctcca ctgagccgcg ctccagcgcg cttatgccgc tgctcgtgcc atataccac  
 600  
 tcgattccca tccagcgcg catggcgcag ctcga  
 635

<210> 434  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<400> 434  
 Xaa Pro Ala Ala Leu Gly Tyr Asp Val Ala Ala Ile Gly Arg Glu  
 1 5 10 15  
 Tyr Leu Trp Tyr Leu Met Glu Glu Arg Gly Ala Tyr Ala Glu Ala Ala  
 20 25 30  
 Ala Leu Met Pro Leu Leu Leu Arg Thr Asp Arg Gly Ala Trp Asp Thr  
 35 40 45  
 Phe Val Cys Cys Tyr Leu Glu Arg His Gln Arg Asp Ala Ile Leu Pro  
 50 55 60  
 His Ile Pro Thr Gln Asp Pro Gln Leu Ser Glu Met Val Tyr Asp Leu  
 65 70 75 80  
 Val Leu Val His Leu Leu Gln His Asp Pro Thr Gln Leu Leu Ala Thr  
 85 90 95  
 Leu Arg Ala Trp Pro Ser His Ile Tyr Ser Lys Gln Ala Val Ala Ala  
 100 105 110  
 Ala Ile Gly Asp His Ala Arg Thr Ser Arg Thr Leu Leu Glu Cys Leu  
 115 120 125  
 Ala Gln Leu Tyr Met Ala Ala His Gln Pro Gly Lys Ala Leu Thr Tyr  
 130 135 140  
 Tyr Met Arg Leu Arg Asp Pro Cys Val Phe Asp Leu Ile Arg Glu Tyr  
 145 150 155 160  
 Asp Leu Leu Ile Asp Val Gln His His Ile Gly Thr Leu Val Glu Leu  
 165 170 175  
 Asp Gln Glu Cys Ala Gly Ser Thr Glu Pro Arg Ser Ser Ala Leu Met  
 180 185 190  
 Pro Leu Leu Val Pro Tyr Thr His Ser Ile Pro Ile Gln Arg Ala Met  
 195 200 205  
 Ala Gln Leu  
 210

<210> 435  
 <211> 493  
 <212> DNA  
 <213> Homo sapiens

<400> 435  
 nncgtacgtt cgcgtatttt ccgcgcccgg gaagctatcg ataataaagt tcaaccgctg  
 60  
 atccagcgtt agcaatggcg ggcacaggaa gggtagcttag gcatgcagaa agaaaagctt  
 120  
 tccgctctga tggatgggtga atcgctcgac agcgagctgt tgagttctct gtcgcaagat  
 180  
 cgaacgcttc aacaaagctg gcagggctat cacctgatac gtgacacact gcgaggtgat  
 240

gtcgggcaag tgatgcatct cgacatcgcc gatcgcgtag ccgctgcact tgagaaagaa  
 300  
 cccgcccggc tgggtgccttc cgccgttcag gaatctcagc cgcagcctca cacctggcag  
 360  
 aaaatgccgt tctgggacaa agtgcgtccc tgggagagcc agattacgca aatcggtatg  
 420  
 gcggcctgcg tgtcgctggc ggtgatcgtc ggcgtgcagc agtacaacca gccttctgcg  
 480  
 ccatcgaacg cgt  
 493

<210> 436

<211> 130

<212> PRT

<213> Homo sapiens

<400> 436

Met	Gln	Lys	Glu	Lys	Leu	Ser	Ala	Leu	Met	Asp	Gly	Glu	Ser	Phe	Asp
1				5					10					15	
Ser	Glu	Leu	Leu	Ser	Ser	Leu	Ser	Gln	Asp	Arg	Thr	Leu	Gln	Gln	Ser
		20						25				30			
Trp	Gln	Gly	Tyr	His	Leu	Ile	Arg	Asp	Thr	Leu	Arg	Gly	Asp	Val	Gly
		35				40					45				
Gln	Val	Met	His	Leu	Asp	Ile	Ala	Asp	Arg	Val	Ala	Ala	Ala	Leu	Glu
	50				55				60						
Lys	Glu	Pro	Ala	Arg	Leu	Val	Pro	Ser	Ala	Val	Gln	Glu	Ser	Gln	Pro
65				70				75						80	
Gln	Pro	His	Thr	Trp	Gln	Lys	Met	Pro	Phe	Trp	Asp	Lys	Val	Arg	Pro
		85						90					95		
Trp	Ala	Ser	Gln	Ile	Thr	Gln	Ile	Gly	Met	Ala	Ala	Cys	Val	Ser	Leu
		100					105						110		
Ala	Val	Ile	Val	Gly	Val	Gln	Gln	Tyr	Asn	Gln	Pro	Ser	Ala	Pro	Ser
	115					120						125			
Asn	Ala														
	130														

<210> 437

<211> 447

<212> DNA

<213> Homo sapiens

<400> 437

ntggtaaccg gtgtccctga tatggaccct gctgtgtag agcgtaaatt atttatttta  
 60  
 cgtaattatg taacacgcat ctgtttggag tctgttaatg gattaagga caacttttac  
 120  
 attaatacat tctcatataa aacaatcggt tataaaggtc agttaaccac tgaacaagtg  
 180  
 ccacaatatt tcttagattt acaaaatcca agtatggtaa cggcattagc gcttgttcac  
 240  
 tcacgtttct caacaaatac atttcctcgt tggcgtttag cacaaccatt ccgttacatc  
 300  
 gctcataatg gcgaaatcaa tacggttcgc ggtaatatca attggatgaa agcacgtgaa  
 360

gcgttacttg aagctgaatt ttctactcgc tcagaattag atatgttaat gccaatctgt  
 420  
 acggatggta tgtctgactc ggcaagg  
 447

<210> 438  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 438  
 Xaa Val Thr Gly Val Pro Asp Met Asp Pro Ala Val Leu Glu Arg Lys  
 1 5 10 15  
 Leu Phe Ile Leu Arg Asn Tyr Val Thr Arg Ile Cys Leu Glu Ser Val  
 20 25 30  
 Asn Gly Ile Lys Asp Asn Phe Tyr Ile Asn Thr Phe Ser Tyr Lys Thr  
 35 40 45  
 Ile Val Tyr Lys Gly Gln Leu Thr Thr Glu Gln Val Pro Gln Tyr Phe  
 50 55 60  
 Leu Asp Leu Gln Asn Pro Ser Met Val Thr Ala Leu Ala Leu Val His  
 65 70 75 80  
 Ser Arg Phe Ser Thr Asn Thr Phe Pro Arg Trp Arg Leu Ala Gln Pro  
 85 90 95  
 Phe Arg Tyr Ile Ala His Asn Gly Glu Ile Asn Thr Val Arg Gly Asn  
 100 105 110  
 Ile Asn Trp Met Lys Ala Arg Glu Ala Leu Leu Glu Ala Glu Phe Phe  
 115 120 125  
 Thr Arg Ser Glu Leu Asp Met Leu Met Pro Ile Cys Thr Asp Gly Met  
 130 135 140  
 Ser Asp Ser Ala Arg  
 145

<210> 439  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<400> 439  
 nacgcgtgaa gggagagtgg ggccgagccc caggaggctg tcctgcagca gctgcaccag  
 60  
 cttcccaggg gccggctgga cctggccacg caaagcctga cggtggagac ctgcagggcc  
 120  
 ctgggcaagc tgctgccgag ggagacgctg tgcacggagc tggctctgag tgactgcatg  
 180  
 ctcagcgagg aagggggccac actgctgctc cgaggcctgt gtgccaacac cgtgctgcgc  
 240  
 tttctggact taaagggcaa caaccttcgg gctgcagggg ccgaggctct gggaaaactc  
 300  
 ctccaacaga acaagtccat tcagagcctc acgctggagt ggaacagcct gggcacgtgg  
 360  
 gacgatgcct tcgccacctt ctgcgggggc ctggc  
 395

<210> 440

<211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 440

Arg Glu Ser Gly Ala Glu Pro Gln Glu Ala Val Leu Gln Gln Leu His  
 1 5 10 15  
 Gln Leu Pro Arg Gly Arg Leu Asp Leu Ala Thr Gln Ser Leu Thr Val  
 20 25 30  
 Glu Thr Cys Arg Ala Leu Gly Lys Leu Leu Pro Arg Glu Thr Leu Cys  
 35 40 45  
 Thr Glu Leu Val Leu Ser Asp Cys Met Leu Ser Glu Glu Gly Ala Thr  
 50 55 60  
 Leu Leu Leu Arg Gly Leu Cys Ala Asn Thr Val Leu Arg Phe Leu Asp  
 65 70 75 80  
 Leu Lys Gly Asn Asn Leu Arg Ala Ala Gly Ala Glu Ala Leu Gly Lys  
 85 90 95  
 Leu Leu Gln Gln Asn Lys Ser Ile Gln Ser Leu Thr Leu Glu Trp Asn  
 100 105 110  
 Ser Leu Gly Thr Trp Asp Asp Ala Phe Ala Thr Phe Cys Gly Gly Leu  
 115 120 125

<210> 441  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<400> 441

gcccagtact acgtgaacat gttagatgcc gagcagggtct tcttcgacag gcgcagccccg  
 60  
 ggcggcgagt tccaagccgg cttggatccg gaatcctggg gcggtctgtt cactgagacc  
 120  
 gacgggttga acttcgcctt ccacgctcca caggacggcc gggggctggc cgcgctctac  
 180  
 ggcgggtccga aaggcttggga gaacaagctc gatgcctttt tcgcgacgcc ggaaaacgcg  
 240  
 gacaagccgg cgtacggcgg aatccacgaa atgggtcgagg ccagagcggg cccgatgggc  
 300  
 caattgggca tgtccaacga gccctcgac catattccct acatctacaa ctatgccggc  
 360  
 gcgc  
 364

<210> 442  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 442

Ala Gln Tyr Tyr Val Asn Met Phe Asp Ala Glu Gln Gly Phe Phe Asp  
 1 5 10 15  
 Arg Arg Ser Pro Gly Gly Glu Phe Gln Ala Gly Leu Asp Pro Glu Ser  
 20 25 30  
 Trp Gly Gly Leu Phe Thr Glu Thr Asp Gly Trp Asn Phe Ala Phe His

```

      35              40              45
Ala Pro Gln Asp Gly Arg Gly Leu Ala Ala Leu Tyr Gly Gly Pro Lys
      50              55              60
Gly Leu Glu Asn Lys Leu Asp Ala Phe Phe Ala Thr Pro Glu Asn Ala
65              70              75              80
Asp Lys Pro Ala Tyr Gly Gly Ile His Glu Met Val Glu Ala Arg Ala
      85              90              95
Val Arg Met Gly Gln Leu Gly Met Ser Asn Glu Pro Ser His His Ile
      100              105              110
Pro Tyr Ile Tyr Asn Tyr Ala Gly Ala
      115              120

```

<210> 443  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

```

<400> 443
accggttacg gctcagtgc acaagagatg ttcgccaaca acctcgtgcg gatgccgctg
60
ctcatggtgc tggcaatccc cttcgccaag atcctctcga cgacctgtc catcggatcg
120
ggcggtccgg cggcgtcttc cggccctggc atgggtcatcg gcggagccac tggcgcgga
180
ctgtggcgcc tcctcgaggg gctgccaggt atcccatcct caccgatgag tttcgtcatt
240
gtcggcatga tcgcctgctt cggtgcggtt gcccatgccc cactcggcgt gctgctcatg
300
gttggcgaga tgaccggaaa cctgtcgctg ctcgctcctg gcatgatcgc cgtcgccgtc
360
gctggccgag ttgtcgggga cacttcgac tacacctctc agctcaagga tcgcctggag
420
ggcgacgcgt
430

```

<210> 444  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

```

<400> 444
Thr Gly Tyr Gly Ser Val Gln Gln Glu Met Phe Ala Asn Asn Leu Val
1      5      10      15
Arg Met Pro Leu Leu Met Val Leu Ala Ile Pro Phe Ala Lys Ile Leu
      20      25      30
Ser Thr Thr Leu Ser Ile Gly Ser Gly Gly Pro Ala Ala Ser Ser Gly
      35      40      45
Pro Gly Met Val Ile Gly Gly Ala Thr Gly Ala Ala Leu Trp Arg Leu
      50      55      60
Leu Glu Gly Leu Pro Gly Ile Pro Ser Ser Pro Met Ser Phe Val Ile
65      70      75      80
Val Gly Met Ile Ala Cys Phe Gly Ala Val Ala His Ala Pro Leu Gly
      85      90      95
Val Leu Leu Met Val Gly Glu Met Thr Gly Asn Leu Ser Leu Leu Ala

```

100 105 110  
 Pro Gly Met Ile Ala Val Ala Val Ala Gly Arg Val Val Gly Asp Thr  
 115 120 125  
 Ser Ile Tyr Thr Ser Gln Leu Lys Asp Arg Leu Glu Gly Asp Ala  
 130 135 140

<210> 445  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 445  
 ccatggggct gcctagcctc tggggaggcc cctcagctgg tgacaccagc agggcagatt  
 60  
 tcttgcttta ttgctcacc tgtccagggt tccctctggt tgtgaggag ctgctgccac  
 120  
 cttgggtcca ggaagcatga agctccgcag gtcagcctcc tgggtgggagg acttttcctt  
 180  
 agttttcttt gctcttctgc tctgagtcca gccctggctg gacctttgat cccttctctc  
 240  
 tttatcagga aattttctga ctttcttctt ttgccttttc aagatctgtg atgcatctc  
 300  
 caagtgggaa caagccatga aggagctgca ccccgaaag tctgagggtg ggacacgcgt  
 360

<210> 446  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Ala Cys Ser His Leu Glu Met Ala Ser Gln Ile Leu Lys Arg Gln  
 1 5 10 15  
 Lys Lys Lys Val Arg Lys Phe Pro Asp Lys Glu Arg Arg Asp Gln Arg  
 20 25 30  
 Ser Ser Gln Gly Trp Thr Gln Ser Arg Arg Ala Lys Lys Thr Lys Glu  
 35 40 45  
 Lys Ser Ser His Gln Glu Ala Asp Leu Arg Ser Phe Met Leu Pro Gly  
 50 55 60  
 Pro Lys Val Ala Ala Ala Pro Ser Gln Thr Glu Gly Thr Leu Asp Arg  
 65 70 75 80  
 Val Ser Asn Lys Ala Arg Asn Leu Pro Cys Trp Cys His Gln Leu Arg  
 85 90 95  
 Gly Leu Pro Arg Gly  
 100

<210> 447  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 acgcgtgaag ggggaaattg ctctgtgccac ctgaggatta atcattaccc tggaaccctt  
 60



cccaaggcca tcaaggaaca cgcacccctt accagacctt ccagctgctg ggggctctcc  
 120  
 gagtgaggct gaggtcatgg agaagggaat ggggggcccc catggccagc tggacctgat  
 180  
 cactgcctcc ccactcagcc acagccctca gggccctgtg ccagtccaga agccattca  
 240  
 gggacacctt tggccaatgt tctgtttcat ctgcgaggca accttccccca gtgccccaac  
 300  
 catagcgttt tcccccaaac accctcagga aggagggacc actacctgtg cagggggggc  
 360  
 caggagcctc ctgagagcct catatgggga ggaagtggta ccatctcacc cccattgcct  
 420  
 ttctctecta cttccacctg gccagcttcc ctcagtgcc ctcctgcctc agtgcctt  
 480  
 cagcgt  
 487

<210> 448

<211> 117

<212> PRT

<213> Homo sapiens

<400> 448

Met	Glu	Lys	Gly	Met	Gly	Gly	Pro	His	Gly	Gln	Leu	Asp	Leu	Ile	Thr
1			5				10				15				
Ala	Ser	Pro	Leu	Ser	His	Ser	Pro	Gln	Gly	Pro	Val	Pro	Val	Gln	Lys
		20					25				30				
Pro	Ile	Gln	Gly	His	Leu	Trp	Pro	Met	Phe	Cys	Phe	Ile	Cys	Glu	Ala
		35				40					45				
Thr	Phe	Pro	Ser	Ala	Pro	Thr	Ile	Ala	Phe	Ser	Pro	Lys	His	Pro	Gln
	50					55					60				
Glu	Gly	Gly	Thr	Thr	Thr	Cys	Ala	Gly	Gly	Ala	Arg	Ser	Leu	Leu	Arg
65					70					75				80	
Ala	Ser	Tyr	Gly	Glu	Glu	Val	Val	Pro	Ser	His	Pro	His	Cys	Leu	Ser
			85					90					95		
Leu	Leu	Leu	Pro	Pro	Gly	Gln	Leu	Pro	Ser	Val	Pro	Leu	Leu	Pro	Gln
			100					105					110		
Cys	Pro	Phe	Thr	Arg											
			115												

<210> 449

<211> 353

<212> DNA

<213> Homo sapiens

<400> 449

gagctcagcc agttggagtt tgagaagcgg cagctgcaca gggacttggg gcaggccaag  
 60  
 gagaaggggg agcgggcaga gaagctggag agggagctac agcgactcca ggaggagaac  
 120  
 gggaggctgg ccaggaaggt gacctccctg gagacagcca ccgagaaagt cgaggccctg  
 180  
 gagcatgaga gccagggcct gcagctggag aaccggactc tgaggaagtc tctggacacc  
 240

ttgcagaacg tgccctcgca gcttgagggc ctggagcgtg acaacaagca gctggacgca  
300

gagaacctgg agctgcgcag gctggtggag accatgcgga gacgacaacg cgt  
353

<210> 450

<211> 117

<212> PRT

<213> Homo sapiens

<400> 450

Glu	Leu	Ser	Gln	Leu	Glu	Phe	Glu	Lys	Arg	Gln	Leu	His	Arg	Asp	Leu
1				5					10					15	
Glu	Gln	Ala	Lys	Glu	Lys	Gly	Glu	Arg	Ala	Glu	Lys	Leu	Glu	Arg	Glu
			20					25					30		
Leu	Gln	Arg	Leu	Gln	Glu	Glu	Asn	Gly	Arg	Leu	Ala	Arg	Lys	Val	Thr
			35				40					45			
Ser	Leu	Glu	Thr	Ala	Thr	Glu	Lys	Val	Glu	Ala	Leu	Glu	His	Glu	Ser
			50				55				60				
Gln	Gly	Leu	Gln	Leu	Glu	Asn	Arg	Thr	Leu	Arg	Lys	Ser	Leu	Asp	Thr
65					70				75					80	
Leu	Gln	Asn	Val	Ser	Leu	Gln	Leu	Glu	Gly	Leu	Glu	Arg	Asp	Asn	Lys
			85						90				95		
Gln	Leu	Asp	Ala	Glu	Asn	Leu	Glu	Leu	Arg	Arg	Leu	Val	Glu	Thr	Met
			100					105					110		
Arg	Arg	Arg	Gln	Arg											
			115												

<210> 451

<211> 444

<212> DNA

<213> Homo sapiens

<400> 451

gtgatgcggc tgactaagcc tactttatcc accaatatcc cagtaacatg tgaagagaaa  
60  
gacttacctg gagatctctt taaccagctg atgagagatg atccttcaac cgттаатггт  
120  
gcagaagttt таатгттггг агaaатгctg actttaccac agaattttgg gaatatattt  
180  
ttgggagaga ctttttccag ttatatcagc gttcataatg atagcaatca agttgtaaaa  
240  
gacatattag taaaagctga tcttcagaca agttctcagc gtttaaattct ttcagcctcc  
300  
aatgctgcag tggctgaact taaaccggat tgttgattg atgatgtcat acatcatgaa  
360  
gtcaaagaaa ttggaacaca catcttggtg tgtgctgtga gttatacaac tcaggctgga  
420  
gaaaaaatgt atttcagaaa attt  
444

<210> 452

<211> 148

<212> PRT

<213> Homo sapiens

<400> 452

```

Val Met Arg Leu Thr Lys Pro Thr Leu Phe Thr Asn Ile Pro Val Thr
 1           5           10           15
Cys Glu Glu Lys Asp Leu Pro Gly Asp Leu Phe Asn Gln Leu Met Arg
      20           25           30
Asp Asp Pro Ser Thr Val Asn Gly Ala Glu Val Leu Met Leu Gly Glu
      35           40           45
Met Leu Thr Leu Pro Gln Asn Phe Gly Asn Ile Phe Leu Gly Glu Thr
      50           55           60
Phe Ser Ser Tyr Ile Ser Val His Asn Asp Ser Asn Gln Val Val Lys
65           70           75           80
Asp Ile Leu Val Lys Ala Asp Leu Gln Thr Ser Ser Gln Arg Leu Asn
      85           90           95
Leu Ser Ala Ser Asn Ala Ala Val Ala Glu Leu Lys Pro Asp Cys Cys
      100          105          110
Ile Asp Asp Val Ile His His Glu Val Lys Glu Ile Gly Thr His Ile
      115          120          125
Leu Val Cys Ala Val Ser Tyr Thr Thr Gln Ala Gly Glu Lys Met Tyr
      130          135          140
Phe Arg Lys Phe
145

```

<210> 453

<211> 373

<212> DNA

<213> Homo sapiens

<400> 453

```

gctagctctg accccacctt tgccaagtgg cactaggggtg gccaatgggg actaggggtg
60
tataattgga aaatacagtc tcccctgttg tccaagaaag gcccagatg acctgggggt
120
tgaaaggcac tcccgctggg tgcttcctgg gagcaggtgg ggggcagcgg ggcggcgggg
180
cctgtctgtg ctgagcatcc ccagctccag ggcaggtgct gggctctgag cccactggg
240
gcgttttggg atgggctggc ctgcgcggct gtcgtttcag agcacacaga agagaccctg
300
ccacaggagg agtgggagga gaagctgttg atgttcctgc gagacaccct ggccatcatt
360
tctgacaacg cgt
373

```

<210> 454

<211> 108

<212> PRT

<213> Homo sapiens

<400> 454

```

Met Met Ala Arg Val Ser Arg Arg Asn Ile Asn Ser Phe Ser Ser His
 1           5           10           15
Ser Ser Cys Gly Arg Val Ser Ser Val Cys Ser Glu Thr Thr Ala Ala

```

20 25 30  
 Gln Ala Ser Pro Ser Gln Asn Ala Pro Val Gly Leu Arg Ala Gln His  
 35 40 45  
 Leu Pro Trp Ser Trp Gly Cys Ser Ala Gln Thr Gly Pro Ala Ala Pro  
 50 55 60  
 Leu Pro Pro Thr Cys Ser Gln Glu Ala Pro Ser Gly Ser Ala Phe Gln  
 65 70 75 80  
 Ala Pro Gly His Leu Gly Pro Phe Leu Asp Asn Arg Gly Asp Cys Ile  
 85 90 95  
 Phe Gln Leu Tyr Asn Pro Ser Pro His Trp Pro Pro  
 100 105

&lt;210&gt; 455

&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 455

cctaggcaaa gcatgcccac cctacctccc cttaccctta cccttcattt tcccctaagc  
 60  
 acccatcacc accgatgtta ctgtatgtgt ttgcttacgc tgacagccca ccacccacac  
 120  
 tggaaatgtcc gcacgacaaa ggcaggactc ttggctgcct tagccacagc tggatcccca  
 180  
 gagcttttga ggggtgttggg cacagagtgg agtgggtact taataagtat ctgtggaatg  
 240  
 aacatgtaca gagtgaagcc ctgtgcccag aacaggctca aaataagctc aattcctttc  
 300  
 cttgccactt actaagtcct ttttctctcg cccctctca ctgacctggt tttgatgcca  
 360  
 gacagcacag atgggctagg gaggcagggt gggaagcaga gatctgcgtc tcttgagct  
 420  
 ggagctgggtg ggtggggctc cttcctggtg ctgcggaggc tcattgggga ggtggcagcg  
 480  
 accccctcag gaggctctgt cgctgcact cagatctgtg cctttccaca gcgcccggag  
 540  
 gaagacttgc tcaggagata aattcaaaga caacaggaag ctggacgtgg tggctcacgc  
 600  
 gt  
 602

&lt;210&gt; 456

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 456

Met Pro Thr Leu Pro Pro Leu Thr Leu Thr Leu His Phe Pro Leu Ser  
 1 5 10 15  
 Thr His His His Arg Cys Tyr Cys Met Cys Leu Leu Thr Leu Thr Ala  
 20 25 30  
 His His Pro His Trp Asn Val Arg Thr Thr Lys Ala Gly Leu Leu Ala  
 35 40 45  
 Ala Leu Ala Thr Ala Gly Ser Pro Glu Leu Cys Arg Val Leu Gly Thr

50		55		60	
Glu Trp Ser Gly Tyr	Leu Ile Ser Ile Cys Gly Met Asn Met Tyr Arg				
65	70	75	80		
Val Lys Pro Cys Ala	Gln Asn Arg Leu Lys Ile Ser Ser Ile Pro Phe				
	85	90	95		
Leu Ala Thr Tyr					
100					

<210> 457  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 457  
 acgcgtcatg tggatattcc tgggaggttc ccaggaacgt ttctggacgg gccccgacc  
 60  
 agaggtcagg gaacttttct tattattctg cacgtgccca gggatagtca aaccaggtct  
 120  
 tccccttctg ctggccgcaa caccgagcc gccgccacga ccgcacgctg aattcatgac  
 180  
 ccgacacgcg acgtggcagc gagcacaccc accgctagga gaaagagcgc tcatcgaaga  
 240  
 tcgttttctg tccactggcc agcgccacta tgatcaggtg gggatatccgc ccggcggcgg  
 300  
 gagcaccggg acgccggggc gccg  
 324

<210> 458  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

Met Trp Ile Phe Leu Gly Gly Ser Gln Glu Arg Phe Trp Thr Gly Pro	
1	5 10 15
Arg Pro Glu Val Arg Glu Leu Phe Leu Leu Phe Cys Thr Cys Pro Gly	
	20 25 30
Ile Val Lys Pro Gly Leu Pro Leu Leu Leu Ala Ala Thr Arg Gln Pro	
	35 40 45
Pro Pro Arg Pro His Ala Glu Phe Met Thr Arg His Ala Thr Trp Gln	
	50 55 60
Arg Ala His Pro Pro Leu Gly Glu Arg Ala Leu Ile Glu Asp Arg Phe	
65	70 75 80
Leu Ser Thr Gly Gln Arg His Tyr Asp Gln Val Gly Tyr Pro Pro Gly	
	85 90 95
Gly Gly Ser Thr Gly Thr Pro Gly Arg	
100	105

<210> 459  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 459

acgcgttcat tcggcatctg cttccatgga tttcctgcgg ggaggcgcgg ccgagagtgc  
60  
gggtgtcgaa caccgacctt cagtgatcgt ttcaaccacc ggccgagatg ggtcctgacg  
120  
ctgggcttca agccgcttgc gctcgcgctc ctgatctcgg gcagcgcgat tccggtggtt  
180  
tatgctgccg gcagacgact gcgcacgccc ctacagaggt atctgcacat gcttaaaggg  
240  
agaggcctca cccgacagct gggcatcgga tttacgaagc ccacgacgaa tcttcctcgc  
300  
ctcctcaaag ccgatcatcg gcatgccagg tttgtgggtg aatgcttcga tcaacacact  
360  
aggatcggtg gggccacca catacaccga ggggcaatcg agcggatacg acctc  
415

<210> 460  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 460  
Met Pro Met Ile Gly Phe Glu Glu Ala Arg Lys Ile Arg Arg Gly Leu  
1 5 10 15  
Arg Lys Ser Asp Ala Gln Leu Ser Gly Glu Ala Ser Pro Phe Lys His  
20 25 30  
Val Gln Ile Pro Arg Glu Gly Arg Ala Gln Ser Ser Ala Gly Ser Ile  
35 40 45  
Asn His Arg Asn Arg Ala Ala Arg Asp Gln Glu Arg Glu Arg Lys Arg  
50 55 60  
Leu Glu Ala Gln Arg Gln Asp Pro Ser Arg Pro Val Val Glu Thr Ile  
65 70 75 80  
Thr Glu Val Ser Cys Ser Thr Pro Ala Leu Ser Ala Ala Pro Pro Arg  
85 90 95  
Arg Lys Ser Met Glu Ala Asp Ala Glu  
100 105

<210> 461  
<211> 357  
<212> DNA  
<213> Homo sapiens

<400> 461  
acgcgttcga ggtcggctaa atttatcatg cgcacgacaa agagagtagt ggctcacaac  
60  
cgggtccatc gcatgatgac aaaaactggc agaataagat tgatgtcatc ccgtctacca  
120  
gtccttagaa ccagctcaga gagtcccggt gtcggtaccg tcgagactca gtacacaact  
180  
gtcgcgatac cggacgaccc tcttcatctg gttgcagatg ggcgtctcaa tcacgtcact  
240  
gtcgtttacg aaacctacgg gaagctcaat acgtccagcg acaatgcggt ctatacctgt  
300  
catgcgctta ctggtgatgc ccatgcagcc ggatttcacc ccggtgtagt ccgtccg  
357

<210> 462  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 462  
 Thr Arg Ser Arg Ser Ala Lys Phe Ile Met Arg Thr Thr Lys Arg Val  
 1 5 10 15  
 Val Ala His Asn Arg Val Thr Cys Met Met Thr Lys Thr Gly Arg Ile  
 20 25 30  
 Glu Leu Met Ser Ser Arg Leu Pro Ala Pro Arg Thr Ser Ser Glu Ser  
 35 40 45  
 Pro Gly Val Gly Thr Val Glu Thr Gln Tyr Thr Thr Val Ala Ile Pro  
 50 55 60  
 Asp Asp Pro Leu His Leu Val Ala Asp Gly Arg Leu Asn His Val Thr  
 65 70 75 80  
 Val Ala Tyr Glu Thr Tyr Gly Lys Leu Asn Thr Ser Ser Asp Asn Ala  
 85 90 95  
 Val Tyr Thr Cys His Ala Leu Thr Gly Asp Ala His Ala Ala Gly Phe  
 100 105 110  
 His Pro Gly Val Val Arg Pro  
 115

<210> 463  
 <211> 434  
 <212> DNA  
 <213> Homo sapiens

<400> 463  
 gtgcacgggg tatgcgaggg atgcggcatt gccaccaatg ccgctgacct gcgcagatac  
 60  
 gaggcagctg gtgacgatga agtgggtgcga tgcgaggaat gcgatcgtat cctgggtgcgt  
 120  
 accggagagt ccatctgagc ccttcttggtg gcggtgatgc cgggatatcc gtagaattag  
 180  
 cggtcggacg agccatccgg gtgatcgagg cagcgggtgag ttgtcgagga aagtccgggc  
 240  
 tccatagagc aggggtggtgg gtaacgcca cccgggggtga cccgcgggaa agtgccacag  
 300  
 agaacagact gccggtttcg agccgggtgag ggtgaaacgg tggagtaagt gcccaccgcg  
 360  
 tcatcggtga cggtgacggc atggcaaacc ccacctggag caaggccaag aagaccgtga  
 420  
 ggtcgaggac gcgt  
 434

<210> 464  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 464  
 Met Pro Ser Pro Ser Pro Met Thr Arg Trp Ala Leu Thr Pro Pro Phe

```

      1             5             10             15
His Pro His Arg Leu Glu Thr Gly Ser Leu Phe Ser Val Ala Leu Ser
      20             25             30
Arg Gly Ser Pro Arg Val Gly Val Thr His His Pro Ala Leu Trp Ser
      35             40             45
Pro Asp Phe Pro Arg Gln Leu Thr Ala Ala Ala Ile Thr Arg Met Ala
      50             55             60
Arg Pro Thr Ala Asn Ser Thr Asp Ile Pro Ala Ser Pro Pro Gln Glu
      65             70             75             80
Gly Leu Arg Trp Thr Leu Arg Tyr Ala Pro Gly Tyr Asp Arg Ile Pro
      85             90             95
Arg Ile Ala Pro Leu His Arg His Gln Leu Pro Arg Ile Cys Ala Gly
      100             105             110
Gln Arg His Trp Trp Gln Cys Arg Ile Pro Arg Ile Pro Arg Ala
      115             120             125

```

<210> 465  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

```

<400> 465
gatcatttag aatttatgga agaagctgat gtgaaagcta tggtaaatac tggcactgtg
60
gctgtattgc taccaggagc attttacacc ttgaaagaaa ctcaacttcc accgatgaat
120
ttgttacgtc agtacggagt agacattgct atttcgacgg atgctaatacc agggacgtcg
180
ccagcggtat cattacgggt aatgatgaat atggcatgta ccttgtttgg tatgacacct
240
gaaaccgccc ttgcaggggt aacaattcat gcggcaaaag cggtggggat tagcgattct
300
catggcactt tagaagttgg caaggtagct gattttgtct gctgggatgt ggaaagcccc
360
ggtgaacttt gttattgggt aggagagcag ttagtaaagc aacgtattca gcacggagta
420
tcccatgaat aatctaga
438

```

<210> 466  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

```

<400> 466
Asp His Leu Glu Phe Met Glu Glu Ala Asp Val Lys Ala Met Val Lys
1             5             10             15
Ser Gly Thr Val Ala Val Leu Leu Pro Gly Ala Phe Tyr Thr Leu Lys
      20             25             30
Glu Thr Gln Leu Pro Pro Met Asn Leu Leu Arg Gln Tyr Gly Val Asp
      35             40             45
Ile Ala Ile Ser Thr Asp Ala Asn Pro Gly Thr Ser Pro Ala Leu Ser
      50             55             60
Leu Arg Leu Met Met Asn Met Ala Cys Thr Leu Phe Gly Met Thr Pro

```



```

65          70          75          80
Glu Thr Ala Leu Ala Gly Val Thr Ile His Ala Ala Lys Ala Leu Gly
      85          90          95
Ile Ser Asp Ser His Gly Thr Leu Glu Val Gly Lys Val Ala Asp Phe
      100          105          110
Val Cys Trp Asp Val Glu Ser Pro Gly Glu Leu Cys Tyr Trp Leu Gly
      115          120          125
Glu Gln Leu Val Lys Gln Arg Ile Gln His Gly Val Ser His Glu
      130          135          140

```

<210> 467  
 <211> 460  
 <212> DNA  
 <213> Homo sapiens

```

<400> 467
ntttccctgg ctattggcca tgtgggacac aacgttccgc ctaccccaga gcgggtaagc
60
tgcacccctg caccttcttc tcccaccgct tcaaagccac agtgaggaac ttcggagctt
120
ctcgcagtga agatggcggt ggaggaatgg atgccctggc tagaagaggc ggaatatctg
180
ttgattgtgt ggaccgacca caaaaacctg gagtatctcc acacaaccaa gtgcctcaac
240
tccaggcaag caagaagggc ccagctgttt acctgggtcc acttttccct ctcctaccgg
300
ccgggggtcca agaacatcag gctggatgcc ctttcttgcc actttatggg catggggcca
360
ttcctccagg cttgcctgtc acccgggctc ccgtcaaacc ctggccttcg tgcgacaaca
420
ctcttgggtgc cttctatggt tctgtatggt gccgcaattg
460

```

<210> 468  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 468
Gly Thr Ser Glu Leu Leu Ala Val Lys Met Ala Leu Glu Glu Trp Met
1      5      10      15
Pro Trp Leu Glu Glu Ala Glu Tyr Leu Leu Ile Val Trp Thr Asp His
      20      25      30
Lys Asn Leu Glu Tyr Leu His Thr Thr Lys Cys Leu Asn Ser Arg Gln
      35      40      45
Ala Arg Arg Ala Gln Leu Phe Thr Trp Phe His Phe Ser Leu Ser Tyr
      50      55      60
Arg Pro Gly Ser Lys Asn Ile Arg Leu Asp Ala Leu Ser Cys His Phe
65      70      75      80
Met Gly Met Gly Pro Phe Leu Gln Ala Cys Leu Ser Pro Gly Leu Pro
      85      90      95
Ser Asn Pro Gly Leu Arg Ala Thr Thr Leu Leu Val Pro Ser Met Val
      100      105      110
Leu Tyr Val Ala Ala Ile

```

115

<210> 469  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 469  
 cttgtgcaca cggtattttt ccaatacaaa tagtttaaaa agtaaactcc aaatacctat  
 60  
 aagccccctc aaagcacctt ccaaatatga accttggtta tgcccaagggt ccagaggggt  
 120  
 cccccagaaa ggcccaggag cctggggcat gggaaagctg tcgggggtccc catgctgact  
 180  
 ccctggactc caagcgatat tccataaagc cagggcctcc tggctgcggg agggaggcct  
 240  
 tgacccaaaa tccattcggc cctggatact ggagaggcag aggcctctgc tgatgagaag  
 300  
 ccctgagttc ctggctagct gtggttaacc acaaaaaatg cgggggggtga tgattttcga  
 360  
 agtccatcgg caaagaaaga c  
 381

<210> 470  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 470  
 Met Asp Phe Glu Asn His His Pro Pro His Phe Leu Trp Leu Thr Thr  
 1 5 10 15  
 Ala Ser Gln Glu Leu Arg Ala Ser His Gln Gln Arg Pro Leu Pro Leu  
 20 25 30  
 Gln Tyr Pro Gly Pro Asn Gly Phe Trp Val Lys Ala Ser Leu Pro Gln  
 35 40 45  
 Pro Gly Gly Pro Gly Phe Met Glu Tyr Arg Leu Glu Ser Arg Glu Ser  
 50 55 60  
 Ala Trp Gly Pro Arg Gln Leu Ser His Ala Pro Gly Ser Trp Ala Phe  
 65 70 75 80  
 Leu Gly Asp Pro Ser Gly Pro Trp Ala Leu Thr Arg Phe Ile Phe Gly  
 85 90 95  
 Arg Cys Phe Glu Gly Ala Tyr Arg Tyr Leu Glu Phe Thr Phe  
 100 105 110

<210> 471  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 471  
 accggtgact acctgcagca ctggattgac atgggtaaaa agggcggcga ccgcatgcc  
 60  
 gaggtcttcc tgggttaactg gttccgccgc ggcgacgatg gccgcttcct gtggccngg  
 120

cttggcgaaa acttccccggt cctanagtgg atcatcgacc gcattgaagg caacgtagag  
 180  
 gccgaggaca cgggtggtcgg acgcaccgcc cgcgccgagg acatcgactt gcaaggcctt  
 240  
 gacttcgatg tcgacgacgt tcgcgccgca ctgcgcgttg acccgaagga atgggaaggc  
 300  
 gatatgcaag acaacgccga gtacctgaac ttcttgggct cccgcgtgcc cgaggaagtg  
 360  
 tggaaccagt tccgcgcc  
 378

<210> 472  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 472  
 Thr Gly Asp Tyr Leu Gln His Trp Ile Asp Met Gly Lys Lys Gly Gly  
 1 5 10 15  
 Asp Arg Met Pro Glu Val Phe Leu Val Asn Trp Phe Arg Arg Gly Asp  
 20 25 30  
 Asp Gly Arg Phe Leu Trp Pro Xaa Leu Gly Glu Asn Phe Pro Val Leu  
 35 40 45  
 Xaa Trp Ile Ile Asp Arg Ile Glu Gly Asn Val Glu Ala Glu Asp Thr  
 50 55 60  
 Val Val Gly Arg Thr Ala Arg Ala Glu Asp Ile Asp Leu Gln Gly Leu  
 65 70 75 80  
 Asp Phe Asp Val Asp Asp Val Arg Ala Ala Leu Ala Val Asp Pro Lys  
 85 90 95  
 Glu Trp Glu Gly Asp Met Gln Asp Asn Ala Glu Tyr Leu Asn Phe Leu  
 100 105 110  
 Gly Ser Arg Val Pro Glu Glu Val Trp Asn Gln Phe Arg Ala  
 115 120 125

<210> 473  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 473  
 accggttggt gggggaaggg acccatccca tgccacctgt cctagaaaat gtttcccctt  
 60  
 gttgagcagc tgctggatct agggctgctg ggtctaagtc caaaaagggg aaaaggaaaa  
 120  
 aggcaccaag taaaagaagg gggaagctgc caaaaccccc cctgccaaaa ctctcccacc  
 180  
 ctgcttccat ttccctctcc aggggaacagg tgtacctccc ctctccctg tcctcctcag  
 240  
 atgccccagg ggctctctac ttcattcctg ccgaccctgc caggagtggc ctcaggggta  
 300  
 gaggtccta gttggagaat ttgcttgtag gaaggtgaa  
 339

<210> 474

<211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 474

```

Met Phe Pro Leu Val Glu Gln Leu Leu Asp Leu Gly Leu Leu Gly Leu
 1             5             10             15
Ser Pro Lys Arg Glu Lys Gly Lys Arg His Gln Val Lys Glu Gly Gly
      20             25             30
Ser Cys Gln Asn Pro Pro Cys Gln Asn Ser Pro Thr Leu Leu Pro Phe
      35             40             45
Pro Ser Pro Gly Asn Arg Cys Thr Ser Pro Pro Pro Cys Pro Pro Gln
      50             55             60
Met Pro Gln Gly Leu Ser Thr Ser Phe Leu Pro Thr Leu Pro Gly Val
65             70             75             80
Ala Ser Gly Val Glu Ala Pro Ser Trp Arg Ile Cys Leu Gln Glu Gly
      85             90             95
Glu

```

<210> 475  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 475

```

acgcgtgaag ggtccccctcc aaactctgag cctccttcca agccttgctg ggagctcccc
60
agcgccctgcc ggagaggcct ctctccagg cgggcttccc gcgccgatgt gaaggagagg
120
ctgccccaga ggggtctgga tcgtaatcca gaaagggaca gtcccacagc cataatcccc
180
aatgctggga ctcttcagta aaggaagaga tggctttttc gttcatctgc ctttctgaaa
240
ggtaaaatat ctccagatcc gggctctctg ggcgactgcg tatgtggggg tccctgaagc
300
ctttgatgga tcttggttaga agtgggttgt tcatcttggg gtttt
345

```

<210> 476  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 476

```

Met Asn Asn Pro Leu Leu Thr Arg Ser Ile Lys Gly Phe Arg Asp Pro
 1             5             10             15
His Ile Arg Ser Arg Pro Glu Ser Pro Asp Leu Glu Ile Phe Tyr Leu
      20             25             30
Ser Glu Arg Gln Met Asn Glu Lys Ala Ile Ser Ser Phe Thr Glu Glu
      35             40             45
Ser Gln His Ser Gly Leu Trp Leu Trp Asp Cys Pro Phe Leu Asp Tyr
      50             55             60
Asp Pro Asp Pro Ser Gly Ala Ala Ser Pro Ser His Arg Arg Gly Lys

```

65		70		75		80									
Pro	Ala	Trp	Arg	Arg	Gly	Leu	Ser	Gly	Arg	Arg	Trp	Gly	Ala	Pro	Ser
		85		90		95									
Lys	Ala	Trp	Lys	Glu	Ala	Gln	Ser	Leu	Glu	Gly	Thr	Leu	His	Ala	
		100		105		110									

<210> 477  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 477  
 acgcgtggcc gagccagcgt gctcaaggaa atgggtcaacg gcactcttat taacggctgg  
 60  
 gactctcccg aggtggaacg ggcaactggac ctgtgcatgg cgtgcaaagg gtgcgcccga  
 120  
 gattgccccca ccggaatcga catggccagc taccgcagca cggttcttga cgaaaaatac  
 180  
 cgtcaccgtc tccgccctcg ctcccacctg acgatggggc tgctgcccac gtgggaacgt  
 240  
 ttgctcaatc ggaccccagg agcgccgtcg ctggctaacg cagtgtcttc gatgccggtc  
 300  
 ttcgcacgtc ttgctagatg gacagccggg gtggatcagc gtcgtcccct ccccgattc  
 360  
 cagccctcgg ccagattggc cagtccgcag gccgccccgg ttaaggagat tgtggcggat  
 420  
 cc  
 422

<210> 478  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 478  
 Thr Arg Gly Arg Ala Ser Val Leu Lys Glu Met Val Asn Gly Thr Leu  
 1 5 10 15  
 Ile Asn Gly Trp Asp Ser Pro Glu Val Glu Arg Ala Leu Asp Leu Cys  
 20 25 30  
 Met Ala Cys Lys Gly Cys Ala Arg Asp Cys Pro Thr Gly Ile Asp Met  
 35 40 45  
 Ala Ser Tyr Arg Ser Thr Val Leu Asp Glu Lys Tyr Arg His Arg Leu  
 50 55 60  
 Arg Pro Arg Ser His Leu Thr Met Gly Leu Leu Pro Met Trp Glu Arg  
 65 70 75 80  
 Leu Leu Asn Arg Thr Pro Gly Ala Pro Ser Leu Ala Asn Ala Val Leu  
 85 90 95  
 Ser Met Pro Val Phe Ala Arg Leu Ala Arg Trp Thr Ala Gly Val Asp  
 100 105 110  
 Gln Arg Arg Pro Leu Pro Arg Phe Gln Pro Ser Ala Arg Leu Ala Ser  
 115 120 125  
 Pro Gln Ala Ala Pro Val Lys Glu Ile Val Ala Asp  
 130 135 140

<210> 479  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 479  
 cgcgtaggcca ttggccgggc gctggtgctg caccgcgac tggtagattgc cgatgagccg  
 60  
 atctcggcgt tggacatgac catccagaag cagattcttg agctgttcga gcgcctgcag  
 120  
 gcgcagtacg gctttgcttg cctgttcacg tcccacgacc tggcagcggg ggaacgcacg  
 180  
 gccacccggg tggcgggtgat gagcgagggc aggggtgggtg aaatgggtgc ccgcgacgag  
 240  
 atcttcgacc gcccgagca cccctacacc cgcaagctgc tggccgcccgc cagccccttg  
 300  
 gagaaacttg aaaacgggtg ctaccgcatc cgccagggcc ccgtaccg  
 348

<210> 480  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 480  
 Arg Val Ala Ile Gly Arg Ala Leu Val Arg His Pro Arg Leu Val Ile  
 1 5 10 15  
 Ala Asp Glu Pro Ile Ser Ala Leu Asp Met Thr Ile Gln Lys Gln Ile  
 20 25 30  
 Leu Glu Leu Phe Glu Arg Leu Gln Ala Gln Tyr Gly Phe Ala Cys Leu  
 35 40 45  
 Phe Ile Ser His Asp Leu Ala Ala Val Glu Arg Ile Ala His Arg Val  
 50 55 60  
 Ala Val Met Ser Glu Gly Arg Val Val Glu Met Gly Ala Arg Asp Glu  
 65 70 75 80  
 Ile Phe Asp Arg Pro Gln His Pro Tyr Thr Arg Lys Leu Leu Ala Ala  
 85 90 95  
 Ala Ser Pro Leu Glu Lys Leu Glu Asn Gly Gly Tyr Arg Ile Arg Gln  
 100 105 110  
 Gly Pro Val Pro  
 115

<210> 481  
 <211> 441  
 <212> DNA  
 <213> Homo sapiens

<400> 481  
 aagcttctga ctgtggcatt ctccctgctt aatatgtcct caatatcccc tacttactgg  
 60  
 gcaaaaatcct gcttatgctt tgggactagc tcaaagacca ctcccttgga tggtagccttc  
 120  
 cctgcccctgc cggcttgccg tggcttcctc agtgtagga ttaccatcac attgcatcat  
 180

gagagcagaa gaccatctcc atgtgactgc tgcccttgct cccagcaggg cccacaanca  
 240  
 cccagtcacag gacctggctc acgctgggtg gcggatgccc aggaatgggg ctctggatct  
 300  
 gcctcttctc ctgcaggacc aggaaaccgc tgccctgtcc ctgcccagg aaaccctcag  
 360  
 taaatcccca gtcatttgag tttccctca gcgccagaga ccaataacac atctccacca  
 420  
 acctgaaaaa ccttcacgcg t  
 441

<210> 482

<211> 120

<212> PRT

<213> Homo sapiens

<400> 482

Lys	Leu	Leu	Thr	Val	Ala	Phe	Ser	Leu	Leu	Asn	Met	Ser	Ser	Ile	Ser
1				5				10						15	
Pro	Thr	Tyr	Trp	Ala	Lys	Ser	Cys	Leu	Cys	Phe	Gly	Thr	Ser	Ser	Lys
			20					25					30		
Thr	Thr	Pro	Leu	Asp	Gly	Ala	Phe	Pro	Ala	Leu	Pro	Ala	Cys	Ala	Gly
			35				40					45			
Phe	Leu	Ser	Val	Arg	Ile	Thr	Ile	Thr	Leu	His	His	Glu	Ser	Arg	Arg
	50					55				60					
Pro	Ser	Pro	Cys	Asp	Cys	Cys	Pro	Cys	Ser	Gln	Gln	Gly	Pro	Gln	Xaa
65				70						75				80	
Pro	Ser	Pro	Gly	Pro	Gly	Ser	Arg	Trp	Val	Ala	Asp	Ala	Gln	Glu	Trp
			85					90					95		
Gly	Ser	Gly	Ser	Ala	Ser	Ser	Pro	Ala	Gly	Pro	Gly	Asn	Arg	Cys	Pro
			100					105					110		
Val	Pro	Ala	Pro	Gly	Asn	Pro	Gln								
		115					120								

<210> 483

<211> 330

<212> DNA

<213> Homo sapiens

<400> 483

acgcgttcat tccctgatgg ccacgcacga gctaacggag ggatggggcg aagggaaggc  
 60  
 caaggttgcc tcgaagacca aggagtgtgc agggcaggac ctcgttttaa aggaatatcc  
 120  
 tctcaccaga gacacgcggc ggccaggcag ggccggagcg gggcctgtgc ccaggtccg  
 180  
 agcgtctgcc cagcccagca tccctgtccc cagccaggaa tatgtcttcg tggcatagag  
 240  
 ggagctcttg gagccacacc tgcgtgtgca catgtgtcac cccactgctg ggaggggctc  
 300  
 tcccgggacc ctgcagcgtg ggctgggccc  
 330

<210> 484

<211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 484  
 Met Gly Arg Arg Glu Gly Gln Gly Cys Leu Glu Asp Gln Gly Val Cys  
 1 5 10 15  
 Arg Ala Gly Pro Arg Phe Lys Gly Ile Ser Ser His Gln Arg His Ala  
 20 25 30  
 Ala Ala Arg Gln Gly Arg Ser Gly Ala Cys Ala Gln Ala Pro Ser Val  
 35 40 45  
 Cys Pro Ala Gln His Pro Cys Pro Gln Pro Gly Ile Cys Leu Arg Gly  
 50 55 60  
 Ile Glu Gly Ala Leu Gly Ala Thr Pro Ala Cys Ala His Val Ser Pro  
 65 70 75 80  
 His Cys Trp Glu Gly Leu Ser Arg Asp Pro Ala Ala Trp Ala Gly Pro  
 85 90 95

<210> 485  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 485  
 acgcgtgctc gcgcggacga agtcggcgct gatcgcccag tcatgcgccc tgcccgtgcc  
 60  
 gccagtttcg gcgatcgccg cattcggccg gccggaatcg agaaggaatg cgtggacgta  
 120  
 cgggggatac caaaggaatc ttgtcgaggg cttcgcgccc ctcgacgtgg atcacctgta  
 180  
 cccgacggac gtgggggaagc cgccccgcaa gctcacggga ctccgcgaca tcgatgtgcg  
 240  
 atacgatttg caccgtcgtc ggctgctgct gcgacacatg ctccgcgatc gcctcagcgg  
 300  
 tggtttccga cgtcagcagg aacgtggcga cgggtggcat ggcggtcgcc gttatgtcgg  
 360  
 cattcccatt cctcggg  
 377

<210> 486  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 486  
 Met Arg Pro Ala Arg Ala Ala Gln Phe Gly Asp Arg Arg Ile Arg Pro  
 1 5 10 15  
 Ala Gly Ile Glu Lys Glu Cys Val Asp Val Arg Gly Ile Pro Lys Glu  
 20 25 30  
 Ser Cys Arg Gly Leu Arg Gly Pro Arg Arg Gly Ser Pro Val Pro Asp  
 35 40 45  
 Gly Arg Gly Glu Ala Val Pro Gln Ala His Gly Thr Pro Arg His Arg  
 50 55 60  
 Cys Ala Ile Arg Phe Ala Pro Ser Ser Ala Ala Cys Ala Thr His Ala



```

65              70              75              80
Pro Arg Ser Pro Gln Arg Trp Phe Pro Thr Ser Ala Gly Thr Trp Arg
              85              90              95
Arg Val Ala Trp Arg Ser Pro Leu Cys Arg His Ser His Ser Ser
              100              105              110

```

<210> 487  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

```

<400> 487
nnacgcgtaa gatcgattgt ggatcagcac cgatgctggt ccccccgcac ttgttggtgg
60
cgggtgttgt tgtaaggagt gtgtgtgatg cgtgttggtg ttcctactga ggtaagaat
120
agtgagtttc gtgtggctgt gacgccggcg ggtgttcattg cgttggttgg tcgtgggtcat
180
gaggtgttgg ttcaggctgg tgctggtgtg ggttcgggta ttcgggattc ggattttgtg
240
ggtgctgggtg cgcggggttgt ggggtgatgtg gagtcggtgt ggggtgatgc tgatttggtg
300
ttgaaggtga aggagcctgt tgcgaggag tatgggcggt tgcattgagg tttggttctt
360
tttacgtatc ttcatttggc tgctgatgag gcgttgactc gtgagctttt ggggcgtggg
420
gtgacgtcga ttgcgtatga gacggtggag ttggccgat
459

```

<210> 488  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

```

<400> 488
Met Arg Val Gly Val Pro Thr Glu Val Lys Asn Ser Glu Phe Arg Val
1              5              10              15
Ala Val Thr Pro Ala Gly Val His Ala Leu Val Gly Arg Gly His Glu
              20              25              30
Val Leu Val Gln Ala Gly Ala Gly Val Gly Ser Gly Ile Pro Asp Ser
              35              40              45
Asp Phe Val Gly Ala Gly Ala Arg Val Val Gly Asp Val Glu Ser Val
              50              55              60
Trp Gly Asp Ala Asp Leu Val Leu Lys Val Lys Glu Pro Val Ala Glu
65              70              75              80
Glu Tyr Gly Arg Leu His Glu Gly Leu Val Leu Phe Thr Tyr Leu His
              85              90              95
Leu Ala Ala Asp Glu Ala Leu Thr Arg Glu Leu Leu Gly Arg Gly Val
              100              105              110
Thr Ser Ile Ala Tyr Glu Thr Val Glu Leu Ala Asp
              115              120

```

<210> 489  
 <211> 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 489

nacgcgtttg gcgtactgag tgcggtggtg gatggcgacg acagtggcaa gccgctgctc  
 60  
 aaccagcacg gttgctacaa agtgcgcttt ccatttacct gcgatcaaaa gccagcact  
 120  
 cggggttcgg catggctgcg caggggtgctg ttgtctgccg gttccagcca tggcatgcac  
 180  
 ttccgctgc tcaaaggcag tgaagtgttg gtgtcatttc tggggggcga ccccgaccgg  
 240  
 ccgattatcg ttggctgcgt accaaactcg gaaaccccg gcatggctcg tgagcgtaac  
 300  
 gccaccacga gcggcttctc cacggccgga gggcacttcc tggcgatgga agaccacccc  
 360  
 ggggctgccc atctgaagct ggggtgcgct ggcggcaaca gcgtcttcac actgggcaat  
 420  
 ggcaaagtcg ccggcgcgca actgcgccac aacgccccac atgcaattga catcgtcttc  
 480  
 gctcaaacac gaagtgcccg gcgtgtactc attgtcgatg ggcaccgggg acccgggcggc  
 540  
 cg  
 542

&lt;210&gt; 490

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 490

Xaa Ala Phe Gly Val Leu Ser Ala Val Val Asp Gly Asp Asp Ser Gly  
 1 5 10 15  
 Lys Pro Leu Leu Asn Gln His Gly Cys Tyr Lys Val Arg Phe Pro Phe  
 20 25 30  
 Thr Arg Asp Gln Lys Pro Ser Thr Arg Gly Ser Ala Trp Leu Arg Arg  
 35 40 45  
 Val Ser Leu Ser Ala Gly Ser Ser His Gly Met His Phe Pro Leu Leu  
 50 55 60  
 Lys Gly Ser Glu Val Leu Val Ser Phe Leu Gly Gly Asp Pro Asp Arg  
 65 70 75 80  
 Pro Ile Ile Val Gly Cys Val Pro Asn Ser Glu Thr Pro Ser Met Val  
 85 90 95  
 Val Glu Arg Asn Ala Thr Gln Ser Gly Phe Ser Thr Ala Gly Gly His  
 100 105 110  
 Phe Leu Ala Met Glu Asp His Pro Gly Ala Ala His Leu Lys Leu Gly  
 115 120 125  
 Ala Pro Gly Gly Asn Ser Val Phe Thr Leu Gly Asn Gly Lys Val Ala  
 130 135 140  
 Gly Ala Gln Leu Arg Thr Asn Ala Pro His Ala Ile Asp Ile Val Phe  
 145 150 155 160  
 Ala Gln Thr Arg Ser Ala Arg Arg Val Leu Ile Val Asp Gly His Arg  
 165 170 175  
 Gly Pro Gly Gly

180

<210> 491  
 <211> 825  
 <212> DNA  
 <213> Homo sapiens

<400> 491  
 nacgcgtcga ggcgacggtc ggcgccgtca tggcgactgt tctcgagggc acatgggaac  
 60  
 gcatcgggtgc cggattccgg actgccttaa ccacagcctt ggaacgcacc gatgaatggg  
 120  
 tgggcggccc tgacagcaag cccctcaacg aagtcgagac actgcgccgg tgcgccgatg  
 180  
 aactcatcgg cgggcccgtc ggcgcggttg ccgcgatgca cggaggggtca atcgaattgg  
 240  
 tcgacgtgtc ggtcgggtgac gaagagcgca gagtcgacgt caccatgaag ggagcatgcc  
 300  
 gaggttgccc ggcagccatc agaccctaca tcagcgccctg gaacatcaac tgagtctgcg  
 360  
 nattgcgcga gccggtcacc gtgcgggaaa tctgacacct actccgacag ctccacctcg  
 420  
 acgagcacct ccacgacgag gccaaagccac tcgtagacgc attcctcctc ggcattccaat  
 480  
 tcctcccggg ccgcccgagc gacttcgtcg gcagtaacct ggtcgatgat ccctagcctg  
 540  
 gcggccatca tgccacgcag cgcattgaca gtacgaagcc aacgttgctg catcacaggg  
 600  
 ttcatggaga tacagccggt tcggtgcaac gtctccacat cagcacttaa ggactgagcg  
 660  
 tcttcccagc gcgcccgcac atcctcggcg tcattggtcga catggaattg cgcgtcagct  
 720  
 gagtcgtcgt cacgataggc gctgggcagg atcaatcgac gcacctcgtc gtcctcctgg  
 780  
 agtccagaaa actggctctc ccaaaaagcg aacgggtccc cctcc  
 825

<210> 492  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 492  
 Met Asn Gly Trp Ala Ala Leu Thr Ala Ser Pro Ser Thr Lys Ser Arg  
 1 5 10 15  
 His Cys Ala Gly Ala Pro Met Asn Ser Ser Ala Gly Pro Ser Ala Arg  
 20 25 30  
 Leu Pro Arg Cys Thr Glu Gly Gln Ser Asn Trp Ser Thr Cys Arg Ser  
 35 40 45  
 Val Thr Lys Ser Ala Glu Ser Thr Ser Pro  
 50 55

<210> 493  
 <211> 863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 493

nacgcgttcc aacctcgtca aaacggctat cgcaggaaat gaccccaact ggggtcgcac  
 60  
 cctcgcggcg atcggatgtg ttctgagaa tatagctccc ttcgatcccg accaggtgga  
 120  
 tgtgtccatc aatgacattc agatctgtaa ggccgggggt atcggggagg accgcaacct  
 180  
 cgtcgatatg aggccacgag aggttcacat cgatattgag ctgcatgcgg gtgatgccga  
 240  
 agctgcggta tggactaatg atctgaccca ccaatacgtc gaagagaata gcgcgtatac  
 300  
 atcatgaccc ttgctcttga catccccctc aacgactccc agttctcggc tcagcggaaa  
 360  
 tctgaggtcc tggtagaagc gctgccttgg atcaggcggt ttcagggccg cactgtcgtc  
 420  
 gtgaaatatg gcggcaacgc gatggttgat cccggtctgc agcaggcctt cgccgacgac  
 480  
 attgtgttta tggcctctgt ggggattcgc cctattgtcg tccacggtgg tggccctcag  
 54  
 atcaatgcc a tgcttctga atccgctacc ccggtggagt tccgtaatgg tttgcgggtg  
 600  
 acatctccgg aggtcatgga ggttgtccgg atggtgctcg tcgggcagggt gggccgtcag  
 660  
 ctcgttaacc gaatcaacgc ctatgcgccg ctagcagctg gcatgtcagg cgaggacttt  
 720  
 ggcctttttt cggcccggaa gtcgcgggta attgttgatg gcgagcaa at agacatgggt  
 780  
 ttagtgggag acatcgttga cgtcaacatc gatctcgta tctctatgct tgatcgcggt  
 840  
 cagattccgg tcattgcacc ggt  
 863

&lt;210&gt; 494

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 494

Met Thr Leu Ala Leu Asp Ile Pro Leu Asn Asp Ser Gln Phe Ser Ala  
 1 5 10 15  
 Gln Arg Lys Ser Glu Val Leu Val Glu Ala Leu Pro Trp Ile Arg Arg  
 20 25 30  
 Phe Gln Gly Arg Thr Val Val Val Lys Tyr Gly Gly Asn Ala Met Val  
 35 40 45  
 Asp Pro Gly Leu Gln Gln Ala Phe Ala Asp Asp Ile Val Phe Met Ala  
 50 55 60  
 Ser Val Gly Ile Arg Pro Ile Val Val His Gly Gly Gly Pro Gln Ile  
 65 70 75 80  
 Asn Ala Met Leu Ala Glu Ser Ala Thr Pro Val Glu Phe Arg Asn Gly  
 85 90 95  
 Leu Arg Val Thr Ser Pro Glu Val Met Glu Val Val Arg Met Val Leu

```

      100      105      110
Val Gly Gln Val Gly Arg Gln Leu Val Asn Arg Ile Asn Ala Tyr Ala
      115      120      125
Pro Leu Ala Ala Gly Met Ser Gly Glu Asp Phe Gly Leu Phe Ser Ala
      130      135      140
Arg Lys Ser Arg Val Ile Val Asp Gly Glu Gln Ile Asp Met Gly Leu
145      150      155      160
Val Gly Asp Ile Val Asp Val Asn Ile Asp Leu Val Ile Ser Met Leu
      165      170      175
Asp Arg Gly Gln Ile Pro Val Ile Ala Pro
      180      185

```

<210> 495  
 <211> 514  
 <212> DNA  
 <213> Homo sapiens

```

<400> 495
gcgcgcgaca ccggtgcccc gattagcgtg ccagtgggtg acgtcactaa gggtcacgtc
60
tggaatgtga caggtgacgt tcttaacgcc ngatccctcc acaatcgagg tgacnntgag
120
cggtggccga tccaccggga tcccccgccc ttcgatgacc ttgagcccga gaccgagatg
180
ctggagaccg gtattaaggt ccttgacttg ctgactcctt acgtcaaggg cggcaagatt
240
ggcctctttg gcggcgctgg tgtgggtaag acggtgctca ttcaggagat gatttaccgt
300
atgcccaca acttcggcgg tacttcgggtt ttcgccggtg tcggtgagcg taccgcgag
360
ggtaacgacc tcatcaacga gatggacgag gccggtgtgc tcaaagacac cgccctggta
420
ttcggccaga tggacgagcc cccgggcacg cggtacgagc tgtcgcgctg gcagccctgc
480
ggcccatgcc tggtaactg ctgtgggacc ttgg
514

```

<210> 496  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

```

<400> 496
Ala Arg Asp Thr Gly Ala Pro Ile Ser Val Pro Val Gly Asp Val Thr
1      5      10      15
Lys Gly His Val Trp Asn Val Thr Gly Asp Val Leu Asn Ala Xaa Ser
      20      25      30
Leu His Asn Arg Gly Asp Xaa Glu Arg Trp Pro Ile His Arg Asp Pro
      35      40      45
Pro Ala Phe Asp Asp Leu Glu Pro Glu Thr Glu Met Leu Glu Thr Gly
      50      55      60
Ile Lys Val Leu Asp Leu Leu Thr Pro Tyr Val Lys Gly Gly Lys Ile
65      70      75      80
Gly Leu Phe Gly Gly Ala Gly Val Gly Lys Thr Val Leu Ile Gln Glu

```

```

      85              90              95
Met Ile Tyr Arg Ile Ala His Asn Phe Gly Gly Thr Ser Val Phe Ala
      100              105              110
Gly Val Gly Glu Arg Thr Arg Glu Gly Asn Asp Leu Ile Asn Glu Met
      115              120              125
Asp Glu Ala Gly Val Leu Lys Asp Thr Ala Leu Val Phe Gly Gln Met
      130              135              140
Asp Glu Pro Pro Gly Thr Arg Tyr Glu Leu Ser Arg Trp Gln Pro Cys
      145              150              155              160
Gly Pro Cys Leu Val Asn Cys Cys Gly Thr Leu
      165              170

```

<210> 497  
 <211> 662  
 <212> DNA  
 <213> Homo sapiens

```

<400> 497
acgcgtcctg ggatctcaac ccagcagtc tggettgttt ctcattccca caatttcctg
60
ggttccacca agcagcgaaa actgccagga tgaatgagga aaaaacccag cccacaaaac
120
gagacacacg ctggcgggga gagacgcagc agagctcctt cctgtctgtg gactcggagc
180
aaagacgtgg ggccccatct tttgtgtttt cctcaagcgg ggaaagaatg gactgtttgc
240
atgcttcgtg ccacacgccc gcggtgatcc cagccagggc cccgagcgca gaggcggagc
300
tgtgtcagc acaggcctgg gacctcccc ggagggcacc tgtggggggt gcagcccccg
360
ggaaggaggc aactgcctca cttaacatcc tccgctgcaa ggtggtggcg ccgagaggcg
420
tgtctgtgaa gacaggtacc aggatggcag gaccgcacg cctcttccca cacctgtcag
480
cttcggaagc atctctcgag gactctggtc ccaggatgtc tcccaggaca agccagtctg
540
cctcttcctc ctacttctgc tgtagcctgg gaccagacct ggccaaggtc agccagcggg
600
gagggccgag gtctgagctc tcgtcctgcc gtggcccccg cgatggcttg gggtgcaagc
660
tt
662

```

<210> 498  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

```

<400> 498
Met Asn Glu Glu Lys Thr Gln Pro His Lys Arg Asp Thr Arg Trp Arg
1      5      10      15
Gly Glu Thr Gln Ser Ser Phe Leu Ser Val Asp Ser Glu Gln Arg
20     25     30
Arg Gly Ala Pro Ser Phe Val Phe Ser Ser Ser Gly Glu Arg Met Asp

```

```

      35      40      45
Cys Leu His Ala Ser Cys His Thr Pro Ala Val Ile Pro Ala Arg Ala
 50      55      60
Pro Ser Ala Glu Ala Glu Leu Cys Ser Ala Gln Ala Trp Asp Leu Pro
65      70      75      80
Arg Gln Ala Pro Val Gly Gly Ala Ala Pro Gly Lys Glu Ala Thr Ala
      85      90      95
Ser Leu Asn Ile Leu Arg Cys Lys Val Val Ala Pro Arg Gly Val Ser
      100      105      110
Val Lys Thr Gly Thr Arg Met Ala Gly Pro Ala Arg Leu Phe Pro His
      115      120      125
Leu Ser Ala Ser Glu Ala Ser Leu Glu Asp Ser Gly Pro Arg Met Ser
      130      135      140
Pro Arg Thr Ser Gln Ser Ala Ser Ser Ser Tyr Phe Cys Cys Ser Leu
145      150      155      160
Gly Pro Asp Leu Ala Lys Val Ser Gln Arg Gly Gly Pro Arg Ser Glu
      165      170      175
Leu Ser Ser Cys Arg Gly Pro Arg Asp Gly Leu Gly Cys Lys Leu
      180      185      190

```

<210> 499  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

```

<400> 499
acgcgtgaag ggtgggcagt gttgagctga gtgagccctc ctcctgcaa tgctggagcc
60
ctgccttctg cctgaccctc tggcttcta agcagtctat acgtgagaag ccctttcttc
120
aagtgaagc ttctgagctc actacgagag cactggagct ggaacctctc tgggttcaaa
180
tcctcaactg gggggttgga ggagggttact tcacttctca aaacctcaat ttccttatct
240
gcaaaatggg gtaataggag cccctcttca tcaatgcttg gagggaatgc ctggcacagt
300
agggcagtta ccgtcatgga gaacagaaag gccccgagct atcctggatg tggtgagaat
360
gggtcctgga tcctgcctgc tcggcctttt cattctcttc ttcacctaca ggctcccaca
420
aagggcctct gaaaacacag ggtg
444

```

<210> 500  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 500
Met Thr Val Thr Ala Leu Leu Cys Gln Ala Phe Pro Pro Ser Ile Asp
 1      5      10      15
Glu Glu Gly Leu Leu Leu Pro His Phe Ala Asp Lys Glu Ile Glu Val
      20      25      30
Leu Arg Ser Glu Val Thr Ser Ser Asn Pro Pro Val Glu Asp Leu Asn

```

```

      35              40              45
Pro Glu Arg Phe Gln Leu Gln Cys Ser Arg Ser Glu Leu Arg Ser Phe
      50              55              60
His Leu Lys Lys Gly Leu Leu Thr Tyr Arg Leu Leu Arg Lys Pro Glu
65              70              75              80
Gly Gln Ala Glu Gly Arg Ala Pro Ala Leu Gln Gly Gly Gly Leu Thr
      85              90              95
Gln Leu Asn Thr Ala His Pro Ser Arg
      100              105

```

&lt;210&gt; 501

&lt;211&gt; 800

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 501

```

agatctgatc cgagaagtgg ctgctcaggg aaatgactac tccatggctt tcttaactca
60
ggtactcctt attcaatgag aggcctgagg tgagacccgc catgcggcgc gtggatcgca
120
tgggttagt gcacactagc aaggggctta ggtctccagc tgaggtcaga tgcacacttg
180
gaccttgtag tggggagtaa cacacatctc tgtgttcagc gaaccatcca ggagctgttt
240
gaagtttatt ctcccatgga tgatgctggc ttcccgggtca aagctgagga gtttgtgggtg
300
ctttctcagg aaccttctgt cacggaaacc attgcaccca aaattgcaag acctttcata
360
gaggccctca agagtattga gtatctggag gaggatgccc agaagtccgc acaggagggg
420
gtgctgggac cacacactga tgctctgtca tcagactctg agaacatgcc gtgtgatgaa
480
gaaccatccc aattagagga gctagctgac ttcattggagc agcttacacc aattgaaaaa
540
tatgctttaa attacctgga atcttgaggc agggcctgag agagcacgct gcgccgtact
600
tccagcagct gcggcagacc acggctccac gcctgctgca gttccctgag ctgaggctgg
660
tgcagttcga ctcaggtagt cggcagttgg gggcgtggcc cgtgcgggag ctgcactggc
720
cctggatgat gaggcgtctt tgatgtgatt cgtttcccag ggaagttgga agctttagct
780
atcttgcttc agaaactgaa
800

```

&lt;210&gt; 502

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 502

```

Met Asp Asp Ala Gly Phe Pro Val Lys Ala Glu Glu Phe Val Val Leu
1              5              10              15
Ser Gln Glu Pro Ser Val Thr Glu Thr Ile Ala Pro Lys Ile Ala Arg

```



```

      20      25      30
Pro Phe Ile Glu Ala Leu Lys Ser Ile Glu Tyr Leu Glu Glu Asp Ala
      35      40      45
Gln Lys Ser Ala Gln Glu Gly Val Leu Gly Pro His Thr Asp Ala Leu
      50      55      60
Ser Ser Asp Ser Glu Asn Met Pro Cys Asp Glu Glu Pro Ser Gln Leu
      65      70      75      80
Glu Glu Leu Ala Asp Phe Met Glu Gln Leu Thr Pro Ile Glu Lys Tyr
      85      90      95
Ala Leu Asn Tyr Leu Glu Ser
      100

```

<210> 503  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

```

<400> 503
nnacgcgttg tcgtctctcc gatcattgat tttgttgtat tctgcaatga tgtaaaggaa
60
gatgatgaca cggagaagtt taaagaagcc attgtgaaat ttcataggct gtttgggatg
120
ccagaggaag agaaactcgt caactattac tcttgcagct attggaaggg gaagggtcccc
180
cgtcagggtt ggatgtacct cagcattaac cacctttgct tttattcttt tcttatggga
240
agggaagcga aactgggtcat ccggtgggta gacatcactc agcttgagaa gaatgcccc
300
ctgcttctgc ctgatgtgat caaagtgagc acacggtcca gtgagcattt cttctctgta
360
ttctcaaca tcaacgagac cttcaagtta atggagcagc ttgccaacat agccatgagg
420
caactcttag acaatgaggg atttgaacaa gatcgatccc tgcccaaact caaaaggaaa
480
tctcctaaaa aagtgtctgc tctaaaacgt gatcttgatg cctggggcct tcacgcgt
538

```

<210> 504  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

```

<400> 504
Xaa Arg Val Val Val Ser Pro Ile Ile Asp Phe Val Val Phe Cys Asn
1      5      10      15
Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile Val
      20      25      30
Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val Asn
      35      40      45
Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly Lys Val Pro Arg Gln Gly Trp
      50      55      60
Met Tyr Leu Ser Ile Asn His Leu Cys Phe Tyr Ser Phe Leu Met Gly
      65      70      75      80
Arg Glu Ala Lys Leu Val Ile Arg Trp Val Asp Ile Thr Gln Leu Glu

```

```

      85              90              95
Lys Asn Ala Pro Leu Leu Leu Pro Asp Val Ile Lys Val Ser Thr Arg
      100              105              110
Ser Ser Glu His Phe Phe Ser Val Phe Leu Asn Ile Asn Glu Thr Phe
      115              120              125
Lys Leu Met Glu Gln Leu Ala Asn Ile Ala Met Arg Gln Leu Leu Asp
      130              135              140
Asn Glu Gly Phe Glu Gln Asp Arg Ser Leu Pro Lys Leu Lys Arg Lys
      145              150              155              160
Ser Pro Lys Lys Val Ser Ala Leu Lys Arg Asp Leu Asp Ala Trp Ala
      165              170              175
Leu His Ala

```

<210> 505  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

```

<400> 505
gtgcacgaca ccgaacggta cgaacgtatc tcccaggcac gtcgcgagga acagcaggcc
60
atgctcggct acgacngctc aagaacctgt cgcattgacct tgctcaccgg gcagctggac
120
gaccctccca cgactccttg cggacgctgc gacgtctgtg ctggcccgtg gtactcagtc
180
gaggtcgatc agtcagccgc tgtgagagcc gtccaatccc tcaaccgggt gggagttccg
240
gtggaaccac gcgccgcttg gcccgagggt atggacgccc tccaggttgc gctcaagggt
300
cgcatcagtg ccgaggagat cgctgcagag ggccgcgtca tcgccagact ctccgatctg
360
ggttggggag gggcgctgcg c
381

```

<210> 506  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

```

<400> 506
Val His Asp Thr Glu Arg Tyr Glu Arg Ile Ser Gln Ala Arg Arg Glu
1      5      10      15
Glu Gln Gln Ala Met Leu Gly Tyr Asp Xaa Ser Arg Thr Cys Arg Met
20     25     30
Thr Leu Leu Thr Gly Gln Leu Asp Asp Pro Ser Thr Thr Pro Cys Gly
35     40     45
Arg Cys Asp Val Cys Ala Gly Pro Trp Tyr Ser Val Glu Val Asp Gln
50     55     60
Ser Ala Ala Val Arg Ala Val Gln Ser Leu Asn Arg Val Gly Val Pro
65     70     75     80
Val Glu Pro Arg Ala Ala Trp Pro Ala Gly Met Asp Ala Leu Gln Val
85     90     95
Ala Leu Lys Gly Arg Ile Ser Ala Glu Glu Ile Ala Ala Glu Gly Arg

```

100                      105                      110  
 Val Ile Ala Arg Leu Ser Asp Leu Gly Trp Gly Gly Ala Leu Arg  
           115                      120                      125

<210> 507  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

<400> 507  
 gccggcggtgt tcaacctcat ggtgtggggc ttcattaccg acgtcatcga tgcccaggag  
 60  
 gtcattgtccg gggagcgtga agacggtgtc atctatggcg tgaactcctt cgcccgcaaa  
 120  
 cttgccccagg ccattgccgg tggaaatcggc ggagccatgc tgacgatgat cggctaccag  
 180  
 tcctcctccc aagggtggtgc cgttcagtcg gagtccgtcg tcaatcacct gtacacgctc  
 240  
 gccaccgcca tcccagcat ctgctgcctc ggcgctgccc tgctcatgct gggctaccgc  
 300  
 ctcacccgcg acaagggtggt cgccaacgcc gacgagtgg ctcgtcgcca cgcagtacag  
 360  
 gccgagcaaa actcctgacc cataacggag gcacatcatg gacacgctca tgcggatcac  
 420  
 cgaccacttg acaacctcgc cgggtatcca attgaaaatt gacaagcgaat ggggtgcctc  
 480  
 cgtcacattt gtgacgcgt  
 499

<210> 508  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 508  
 Ala Gly Val Phe Asn Leu Met Val Trp Ala Phe Ile Thr Asp Val Ile  
 1                      5                      10                      15  
 Asp Ala Gln Glu Val Met Ser Gly Glu Arg Glu Asp Gly Val Ile Tyr  
           20                      25                      30  
 Gly Val Asn Ser Phe Ala Arg Lys Leu Ala Gln Ala Ile Ala Gly Gly  
           35                      40                      45  
 Ile Gly Gly Ala Met Leu Thr Met Ile Gly Tyr Gln Ser Ser Ser Gln  
           50                      55                      60  
 Gly Gly Ala Val Gln Ser Glu Ser Val Val Asn His Leu Tyr Thr Leu  
 65                      70                      75                      80  
 Ala Thr Ala Ile Pro Thr Ile Cys Cys Leu Gly Ala Ala Leu Leu Met  
           85                      90                      95  
 Leu Gly Tyr Pro Leu Thr Arg Asp Lys Val Val Ala Asn Ala Asp Glu  
           100                      105                      110  
 Leu Ala Arg Arg His Ala Val Gln Ala Glu Gln Asn Ser  
           115                      120                      125

<210> 509  
 <211> 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 509

ttggccatgg atttggtcgc caagttcagt cccaaagatg tcacgctcta tctaattggac  
 60  
 ttcgggacca atggtgtggc accactaggc caattaccac aggtggccga caccttgctt  
 120  
 ttggatcata cggagaagat tgccaagttt gtacgcatca tggagcggga gctcaaccgg  
 180  
 cgtaagaagc tcttgtccga ctacgggtgtt ggtacactag agctctaccg tcaggctagc  
 240  
 ggtcagcaag agccggccat cgtcacctcg ctggacagtt atgagtcctat gaaggaagag  
 300  
 gcctatgaag cggagctctt cagcgtcttg gtgcggatct cccgggaagg tctcagcatc  
 360

&lt;210&gt; 510

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 510

Leu	Ala	Met	Asp	Leu	Ala	Arg	Lys	Phe	Ser	Pro	Lys	Asp	Val	Thr	Leu
1				5					10				15		
Tyr	Leu	Met	Asp	Phe	Gly	Thr	Asn	Gly	Val	Ala	Pro	Leu	Gly	Gln	Leu
			20					25					30		
Pro	Gln	Val	Ala	Asp	Thr	Leu	Leu	Leu	Asp	His	Thr	Glu	Lys	Ile	Ala
		35					40					45			
Lys	Phe	Val	Arg	Ile	Met	Glu	Arg	Glu	Leu	Asn	Arg	Arg	Lys	Lys	Leu
	50					55				60					
Leu	Ser	Asp	Tyr	Gly	Val	Gly	Thr	Leu	Glu	Leu	Tyr	Arg	Gln	Ala	Ser
65					70				75					80	
Gly	Gln	Gln	Glu	Pro	Ala	Ile	Val	Ile	Leu	Leu	Asp	Ser	Tyr	Glu	Ser
				85				90					95		
Met	Lys	Glu	Glu	Ala	Tyr	Glu	Ala	Glu	Leu	Phe	Thr	Leu	Leu	Val	Arg
		100						105					110		
Ile	Ser	Arg	Glu	Gly	Leu	Ser	Ile								
		115					120								

&lt;210&gt; 511

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 511

ntcgcgaacc gcggtctatgc ggtgctccag cccaatttcc gcggatcggg cggttatggc  
 60  
 actgcgttcg gcgatgccgg catcgccag atcgggcgca agatgcagga cgatctcgac  
 120  
 gacgggatgg actggctggt caaggagggc atcgtcgaca agggccgggt gtgcatcgtc  
 180  
 ggggcctcct atggcggcta tgccgcgatg tggggcgca tccgcaatcc cgaacgctat  
 240

cgctgcgcgg cgagcctggc ggggggttgcc gattaaggcc atgctcaaataaaccggcg  
 300  
 ctatctcgac aaggaggcgg gcaagcgctg gccgccccgn tcaaccggcg aaccggaatt  
 360  
 c  
 361

<210> 512  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 512  
 Xaa Ala Asn Arg Gly Tyr Ala Val Leu Gln Pro Asn Phe Arg Gly Ser  
 1 5 10 15  
 Gly Gly Tyr Gly Thr Ala Phe Gly Asp Ala Gly Ile Gly Gln Ile Gly  
 20 25 30  
 Arg Lys Met Gln Asp Asp Leu Asp Asp Gly Met Asp Trp Leu Val Lys  
 35 40 45  
 Glu Gly Ile Val Asp Lys Gly Arg Val Cys Ile Val Gly Ala Ser Tyr  
 50 55 60  
 Gly Gly Tyr Ala Ala Met Trp Gly Ala Ile Arg Asn Pro Glu Arg Tyr  
 65 70 75 80  
 Arg Cys Ala Ala Ser Leu Ala Gly Val Ala Asp  
 85 90

<210> 513  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 513  
 nnatgcagac tagaagatgg catgacgggt ttggctggcg gtttcgggct atgcggcatt  
 60  
 ccagaaaatc tgattcaaga gatcaaacga cgccagactt gtgatttgac catagtgtca  
 120  
 aataactgtg gtgtagatgg ttttggttta ggggttttgc tagaagataa gcaagtacgc  
 180  
 aaaatggtgt cttcttatgt gggtgaaaat gcactgtttg agaagcaatt attacaaggt  
 240  
 gagttggaag tcgagctcac tcctcaaggc actcttgccg aaaaactacg cgctggcggc  
 300  
 gcgggaattc ctgccttttt cacagcaacg ggtgtaggta cacctattgg tgagggtaaa  
 360  
 gacacgcgt  
 369

<210> 514  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 514  
 Xaa Cys Arg Leu Glu Asp Gly Met Thr Val Leu Ala Gly Gly Phe Gly

```

      1             5             10             15
Leu Cys Gly Ile Pro Glu Asn Leu Ile Gln Glu Ile Lys Arg Arg Gln
      20             25             30
Thr Cys Asp Leu Thr Ile Val Ser Asn Asn Cys Gly Val Asp Gly Phe
      35             40             45
Gly Leu Gly Val Leu Leu Glu Asp Lys Gln Val Arg Lys Met Val Ser
      50             55             60
Ser Tyr Val Gly Glu Asn Ala Leu Phe Glu Lys Gln Leu Leu Gln Gly
      65             70             75             80
Glu Leu Glu Val Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Lys Leu
      85             90             95
Arg Ala Gly Gly Ala Gly Ile Pro Ala Phe Phe Thr Ala Thr Gly Val
      100            105            110
Gly Thr Pro Ile Gly Glu Gly Lys Asp Thr Arg
      115            120

```

<210> 515  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

```

<400> 515
gcgtgggacg agaaggccgc cggcaactgc gcgatcgact acgggttcca ccagatcctc
60
tccgacgtgc aggactcgtc gctgaccgcg atggacgagc tgatcaccca gggcgtgaca
120
tccttcaagc tcttcgtggc ctacaagggc gtcttctctt cggacgacgg gcagatcctg
180
cgggcggttc agaaggccgc cgacaacggc gcgatgatga tgatgcacgc cgagaacggc
240
gcgatcatcg acgtgctcgt gcagcaggcg ctcgaggccg ggaagaccac cccgtactac
300
cacggcatca gccggccgtg gcaggccgag gaggaggcca cccaccgcgc gatcatgatc
360
gccgacctga ccggtgcgcc gttgtac
387

```

<210> 516  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

```

<400> 516
Ala Trp Asp Glu Lys Ala Ala Gly Asn Cys Ala Ile Asp Tyr Gly Phe
1             5             10             15
His Gln Ile Leu Ser Asp Val Gln Asp Ser Ser Leu Thr Ala Met Asp
20            25            30
Glu Leu Ile Thr Glu Gly Val Thr Ser Phe Lys Leu Phe Val Ala Tyr
35            40            45
Lys Gly Val Phe Leu Ser Asp Asp Gly Gln Ile Leu Arg Ala Phe Gln
50            55            60
Lys Gly Ala Asp Asn Gly Ala Met Met Met Met His Ala Glu Asn Gly
65            70            75            80
Ala Ile Ile Asp Val Leu Val Gln Gln Ala Leu Glu Ala Gly Lys Thr

```

				85					90					95
Thr	Pro	Tyr	Tyr	His	Gly	Ile	Ser	Arg	Pro	Trp	Gln	Ala	Glu	Glu
			100					105					110	
Ala	Thr	His	Arg	Ala	Ile	Met	Ile	Ala	Asp	Leu	Thr	Gly	Ala	Pro
		115					120					125		
Tyr														

<210> 517  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 517  
 acgcgtgaag ggctggtggg caggccttgc gccccctctg gggacagctc tcctccaccc  
 60  
 agaccccttc gggccaacag tggggagggg ctgccgtctg agccactggt cgcacagggg  
 120  
 attcgcgagt tccgggggag ctggggactg agctgcgggc ctcttggggt ggggctcttc  
 180  
 tccgaggttg gaggcagctt tagaaacttg agacccttag ctggagaggg cagaaggggt  
 240  
 ccctgagctt ccccaggaga aggggggcca atttgagct tgcttttcac ctgagatgag  
 300  
 gaatgggggt ggccaggccg agagcccagt ggggcatccc cagcacccat gaacatgcta  
 360  
 aggaagggga ggggccc  
 377

<210> 518  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 518  
 Met Phe Met Gly Ala Gly Asp Ala Pro Leu Gly Ser Arg Pro Gly His  
 1 5 10 15  
 Pro His Ser Ser Ser Gln Val Lys Ser Lys Leu Gln Ile Gly Pro Pro  
 20 25 30  
 Ser Pro Gly Glu Ala Gln Gly Pro Leu Leu Pro Ser Pro Ala Arg Gly  
 35 40 45  
 Leu Lys Phe Leu Lys Leu Pro Pro Thr Ser Glu Lys Ser Pro Ser Pro  
 50 55 60  
 Gly Gly Pro Gln Leu Ser Pro Gln Leu Pro Arg Asn Ser Arg Ile Pro  
 65 70 75 80  
 Cys Arg Asn Ser Gly Ser Asp Gly Ser Pro Ser Pro Leu Leu Ala Arg  
 85 90 95  
 Arg Gly Leu Gly Gly Gly Glu Leu Ser Pro Glu Gly Ala Gln Gly Leu  
 100 105 110  
 Pro Thr Ser Pro Ser Arg  
 115

<210> 519  
 <211> 311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 519

gcgcgccagg gggaaggag agaaaacaca gaaaaatgag ggggaaatac cagatactga  
 60  
 agaatttaaa ttattataaa ggaacctttt ctgcaactct gaaaaatgtt agaatatcca  
 120  
 aagaaattga taattttcta ggaaaacatg acttaccaaa attaactcta gaaaagaatc  
 180  
 gatacacatc agtaacaaca gaagttgaga aagtagttaa catattgccca aacctggaat  
 240  
 tcatgattga attctttgag atctactgtg agtacatact ctgcctctgt tcagctgttc  
 300  
 cagaacttaa g  
 311

&lt;210&gt; 520

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 520

Met	Arg	Gly	Lys	Tyr	Gln	Ile	Leu	Lys	Asn	Leu	Asn	Tyr	Tyr	Lys	Gly
1					5				10					15	
Thr	Phe	Ser	Ala	Thr	Leu	Lys	Asn	Val	Arg	Ile	Ser	Lys	Glu	Ile	Asp
			20					25					30		
Asn	Phe	Leu	Gly	Lys	His	Asp	Leu	Pro	Lys	Leu	Thr	Leu	Glu	Lys	Asn
		35					40					45			
Arg	Tyr	Thr	Ser	Val	Thr	Thr	Glu	Val	Glu	Lys	Val	Val	Asn	Ile	Leu
	50					55					60				
Pro	Asn	Leu	Glu	Phe	Met	Ile	Glu	Phe	Phe	Glu	Ile	Tyr	Cys	Glu	Tyr
65					70					75				80	
Ile	Leu	Cys	Leu	Cys	Ser	Ala	Val	Pro	Glu	Leu	Lys				
			85						90						

&lt;210&gt; 521

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 521

nnngatgccca cgccggtcta cggaatctcc accggcttcg gcgcgcttgc ccgcccgcac  
 60  
 attccagaag agatgcgcgc gcagctgcag ctgtccctgg tgcgctccca cgcgccgggc  
 120  
 accggccctg aggtggaaga agaagtaatt cgcgcgctca tgctgctgcg cctatccacc  
 180  
 ctgtgtaccg gccgtaccgg cgtgcgcccc gtggtggtag aaacttatgc caaggcgctc  
 240  
 aacgcccggca tcgtgccggg ggtgcgcgaa tacgggtcgc tgggctgctc cggcgacttg  
 300  
 gccccgctgg ctactgcgc cctagcgctg ttgggtgagg gtgaggtacg cn  
 352



<210> 522  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 522  
 Xaa Asp Ala Thr Pro Val Tyr Gly Ile Ser Thr Gly Phe Gly Ala Leu  
 1 5 10 15  
 Ala Arg Arg His Ile Pro Glu Glu Met Arg Ala Gln Leu Gln Leu Ser  
 20 25 30  
 Leu Val Arg Ser His Ala Ala Gly Thr Gly Pro Glu Val Glu Glu  
 35 40 45  
 Val Ile Arg Ala Leu Met Leu Leu Arg Leu Ser Thr Leu Cys Thr Gly  
 50 55 60  
 Arg Thr Gly Val Arg Pro Val Val Val Glu Thr Tyr Ala Lys Ala Leu  
 65 70 75 80  
 Asn Ala Gly Ile Val Pro Gly Val Arg Glu Tyr Gly Ser Leu Gly Cys  
 85 90 95  
 Ser Gly Asp Leu Ala Pro Leu Ala His Cys Ala Leu Ala Leu Leu Gly  
 100 105 110  
 Glu Gly Glu Val Arg  
 115

<210> 523  
 <211> 693  
 <212> DNA  
 <213> Homo sapiens

<400> 523  
 agcgcttcca cagtcgcgca aactcctctt ggtctagccg cccattcact ttcagttcca  
 60  
 tcagagccac caagctgcgg caccatctaa ggagaacatg tcccctggag gtccctgtag  
 120  
 aagctcctgg ttgagaaggc cctgaagctg ggtggcatca atgtccagcc tctgctgagc  
 180  
 atatctgttg aaaatgcttt gttgggagcc atgttctgaa gggcttcctt tcattctgag  
 240  
 gttgaaatgg ctgctcaggt gcctgtcact gtctggcatt ttcaggaaga ttcggagcaa  
 300  
 gaactccgct gattttctcc gtgtctgtgc aaccacaaca tagttcccag ggctcagatg  
 360  
 gtaagtcacg gtgaagtgc ggcggaattt attatttgag ctttggacag tgtttctgaa  
 420  
 cgaggaaaaa aacacgggtg gaaatttctc ccggaaccgc tgtgagccag ccagaatcac  
 480  
 ttggaaatcg agtggaaatt ttgcatcttc tgetttcaaa tttgatggtg tgacagcaac  
 540  
 tgtgacgcac acgacaacat tgggtgccttc cattggctct tgcacagaga agttgaattg  
 600  
 agcatcattt ccgggtcctc ctggcgtggt tcctagaatc attgcttcct aaacattatt  
 660  
 tgggaccatc cttcgtggag tgtgtttcca tgg  
 693

<210> 524  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 524  
 Met Ile Leu Gly Asn Thr Pro Gly Gly Pro Gly Asn Asp Ala Gln Phe  
 1 5 10 15  
 Asn Phe Ser Val Gln Glu Pro Met Glu Gly Thr Asn Val Val Val Cys  
 20 25 30  
 Val Thr Val Ala Val Thr Pro Ser Asn Leu Lys Ala Glu Asp Ala Lys  
 35 40 45  
 Phe Pro Leu Asp Phe Gln Val Ile Leu Ala Gly Ser Gln Arg Phe Arg  
 50 55 60  
 Glu Lys Phe Pro Pro Val Phe Phe Ser Ser Phe Arg Asn Thr Val Gln  
 65 70 75 80  
 Ser Ser Asn Asn Lys Phe Arg Arg Asn Phe Thr Met Thr Tyr His Leu  
 85 90 95  
 Ser Pro Gly Asn Tyr Val Val Val Ala Gln Thr Arg Arg Lys Ser Ala  
 100 105 110  
 Glu Phe Leu Leu Arg Ile Phe Leu Lys Met Pro Asp Ser Asp Arg His  
 115 120 125  
 Leu Ser Ser His Phe Asn Leu Arg Met Lys Gly Ser Pro Ser Glu His  
 130 135 140  
 Gly Ser Gln Gln Ser Ile Phe Asn Arg Tyr Ala Gln Gln Arg Leu Asp  
 145 150 155 160  
 Ile Asp Ala Thr Gln Leu Gln Gly Leu Leu Asn Gln Glu Leu Leu Thr  
 165 170 175  
 Gly Pro Pro Gly Asp Met Phe Ser Leu Asp Gly Ala Ala Ala Trp Trp  
 180 185 190  
 Leu

<210> 525  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

<400> 525  
 nggcaagttg caaagagagc ctcagagggtc cgaagagcgc tgcgctccta ctcgcgttcg  
 60  
 cttcttcttc ttctcggttc cctactgtga aatcgcagcg acattttacaa aggcctccgg  
 120  
 gtcctaccga gaccgatccg cagcgtttgg cccgggtcgcg cctattgcat cgggagcccc  
 180  
 cgagcaccgg cgaaggactg gcggttggtg tagggaggtg gcggcgccgg catggcgagg  
 240  
 ttcccgaagg ccgacctggc cgctgcagga gttatgttac tttgccactt cttcacggac  
 300  
 cagtttcagt tcgccgatgg gaaacccgga gaccaaattc ttgattggca gtatggagtt  
 360  
 actcaggcct tccctcacac agaggaggag gtggaagttg attcacacgc gtacagccac  
 420

aggtggaaaa gaaacttga ctttctcaag gcggtagaca cgaaccgagc aagcgtcggc  
 480  
 caagactctc ttgagcccag aagcttcaca gacctgctgc tggatgatgg gcaggacaat  
 540  
 aacactcaga tcgaggagga tacagaccac aattactata tatctcgaat atatggtcca  
 600  
 tctgattctg ccagccggga tttatgggtg aacatagacc aaatggaaaa agataaagtg  
 660  
 aagattcatg gaatattgtc caatactcat cggcaagctg caagagtga tctgtccttc  
 720  
 gattttccat tttatggcca ctctctacgt gaaatcactg tggcaaccgg gggtttcata  
 780  
 tacttgaggag aagtcgtaca tcgaatgcta acagccacac agtacatagc acctttaatg  
 840  
 gcaaatttcg atcccagtgt atccagaaat tcaactgtca gatattttga taatggcaca  
 900  
 gcacttgtagg tccagtggga ccatgtacat ctccaggata attataacct gggaagcttc  
 960  
 acattccagg caaccctgct catggatgga cgaatcatct ttggatacaa agaaattcct  
 1020  
 gtcttggtca cacagataag ttcaaccaat catccagtga aagtcggact gtccgatgca  
 1080  
 tttgtcgttg tccacaggat c  
 1101

&lt;210&gt; 526

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 526

Met	Ala	Arg	Phe	Pro	Lys	Ala	Asp	Leu	Ala	Ala	Ala	Gly	Val	Met	Leu
1				5				10						15	
Leu	Cys	His	Phe	Phe	Thr	Asp	Gln	Phe	Gln	Phe	Ala	Asp	Gly	Lys	Pro
		20					25						30		
Gly	Asp	Gln	Ile	Leu	Asp	Trp	Gln	Tyr	Gly	Val	Thr	Gln	Ala	Phe	Pro
		35				40						45			
His	Thr	Glu	Glu	Glu	Val	Glu	Val	Asp	Ser	His	Ala	Tyr	Ser	His	Arg
		50				55					60				
Trp	Lys	Arg	Asn	Leu	Asp	Phe	Leu	Lys	Ala	Val	Asp	Thr	Asn	Arg	Ala
65				70				75						80	
Ser	Val	Gly	Gln	Asp	Ser	Leu	Glu	Pro	Arg	Ser	Phe	Thr	Asp	Leu	Leu
			85					90						95	
Leu	Asp	Asp	Gly	Gln	Asp	Asn	Asn	Thr	Gln	Ile	Glu	Glu	Asp	Thr	Asp
			100					105					110		
His	Asn	Tyr	Tyr	Ile	Ser	Arg	Ile	Tyr	Gly	Pro	Ser	Asp	Ser	Ala	Ser
		115				120						125			
Arg	Asp	Leu	Trp	Val	Asn	Ile	Asp	Gln	Met	Glu	Lys	Asp	Lys	Val	Lys
		130				135					140				
Ile	His	Gly	Ile	Leu	Ser	Asn	Thr	His	Arg	Gln	Ala	Ala	Arg	Val	Asn
145				150				155						160	
Leu	Ser	Phe	Asp	Phe	Pro	Phe	Tyr	Gly	His	Phe	Leu	Arg	Glu	Ile	Thr
			165					170						175	
Val	Ala	Thr	Gly	Gly	Phe	Ile	Tyr	Thr	Gly	Glu	Val	Val	His	Arg	Met

180 185 190  
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro  
 195 200 205  
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala  
 210 215 220  
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu  
 225 230 235 240  
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile  
 245 250 255  
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr  
 260 265 270  
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His  
 275 280 285  
 Arg Ile  
 290

<210> 527

<211> 5343

<212> DNA

<213> Homo sapiens

<400> 527

nngtgccgtg tgctcctcac attcacgcag actgagactg agctgcccga ggaagagtgt  
 60  
 gaaggcccca agctgcccac cgaacggccc tgcttcctgg aagcatgcga tgagagcccg  
 120  
 gcctcccgag agctagacat ccctctccct gaggacagtg agacggctta cgactgggag  
 180  
 tacgctgggt tcaccccttg cacagcaaca tgcttgggag gccatcaaga agccatagca  
 240  
 gtgtgcttac atatccagac ccagcagaca gtcaatgaca gcttgtgtga tatggtccac  
 300  
 cgtcctccag ccatgagcca ggctgtaac acagagccct gtccccccag gtggcatgtg  
 360  
 ggctcttggg ggccctgctc agctacctgt ggagttggaa ttcagacctg agatgtgtac  
 420  
 tgcctgcacc caggggagac ccctgcccct cctgaggagt gccgagatga aaagccccat  
 480  
 gctttacaag catgcaatca gtttgactgc cctcctggct ggcacattga agaatggcag  
 540  
 cagtgttcca ggacttgttg cgggggaact cagaacagaa gagtcacctg tcggcagctg  
 600  
 ctaacggatg gcagcttttt gaatctctca gatgaattgt gccaaaggacc caaggcatcg  
 660  
 tctcacaagt cctgtgccag gacagactgt cctccacatt tagctgtggg agactggtcg  
 720  
 aagtgttctg tcagttgttg tgttggaaac cagagaagaa agcaggtgtg tcaaaggctg  
 780  
 gcagccaaag gtcggcgcat cccctcagt gagatgatgt gcagggatct accagggctc  
 840  
 cctcttgtaa gatcttgcca gatgcctgag tgcagtaaaa tcaaatcaga gatgaagaca  
 900  
 aaacttggtg agcaggggtc gcagatcctc agtgtccaga gagtctacat tcagacaagg  
 960

gaagagaagc gtattaacct gaccattggc agcagagcct atttgctgcc caacacatcc  
1020  
gtgattatta agtgccccgt gcgacgattc cagaaatctc tgatccagtg ggagaaggat  
1080  
ggccgttgcc tgcagaactc caaacggctt ggcatcacca agtcaggctc actaaaaatc  
1140  
cacggtcttg ctgccccga catcggcgtg taccgggtgca ttgcaggctc tgcacaggaa  
1200  
acagttgtgc tcaagctcat tgggtactgac aaccgggtca tcgcacgccc agccctcagg  
1260  
gagcctatga gggaaatatcc tgggatggac cacagcgaag ccaatagttt gggagtcaca  
1320  
tggcacaaaa tgaggcaaat gtggaataac aaaaatgacc tttatctgga tgatgaccac  
1380  
attagtaacc agcctttctt gagagctctg ttaggccact gcagcaattc tgcaggaagc  
1440  
accaactcct gggagttgaa gaataagcag tttgaagcag cagttaaaca aggagcatat  
1500  
agcatggata cagcccagtt tgatgagctg ataagaaaca tgagtcagct catggaaacc  
1560  
ggagaggtca gcatgatctt tgcgtcccag ctgatataat agctgggtggc cgaattagcc  
1620  
aaggcacagc caacacacat gcagtggcgg ggcatccagg aagagacacc tcctgctgct  
1680  
cagctcagag gggaaacagg gagtgtgtcc caaagctcgc atgcaaaaaa ctcaggcaag  
1740  
ctgacattca agccgaaagg acctgttctc atgaggcaaa gccaacctcc ctcaatttca  
1800  
tttaataaaa caataaattc caggattgga aatacagtat acattacaaa aaggacagag  
1860  
gtcatcaata tactgtgtga ccttattacc cccagtgagg ccacatatac atggaccaag  
1920  
gatggaacct tgttacagcc ctgagtaaaa ataattttgg atggaactgg gaagatacag  
1980  
atacagaatc ctacaaggaa agaacaaggc atatatgaat gttctgtagc taatcatctt  
2040  
ggttcagatg tggaaagtcc ttctgtgctg tatgcagagg cacctgtcat cttgtctgtt  
2100  
gaaagaaata tcaccaaacc agagcacaaac catctgtctg ttgtggttgg aggcatcgtg  
2160  
gaggcagccc ttggagcaaa cgtgacaatc cgatgtcctg taaaaggtgt ccctcagcct  
2220  
aatataactt ggttgaagag aggaggatct ctgagtggca atgtttcctt gcttttcaat  
2280  
ggatccctgt tgttcagaa tgtttccctt gaaaatgaag gaacctacgt ctgcatagcc  
2340  
accaatgctc ttggaaaggc agtggcaaca tctgtactcc acttgctgga acgaagatgg  
2400  
ccagagagta gaatcgtatt tctgcaagga cataaaaagt acattctcca ggcaaccaac  
2460  
actagaacca acagcaatga cccaacagga gaacccccgc ctcaagagcc tttttgggag  
2520  
cctggttaact ggtcacattg ttctgccacc tgtggtcatt tgggagcccg cattcagaga  
2580

ccccagtgtg tgatggccaa tgggcaggaa gtgagtgagg ccctgtgtga tcagcctcca  
2640  
gaagccactg gctggggttg agccctgtaa catccgggac tgcccagcga ggtgggttcac  
2700  
aagtgtgtgg tcacagtgtc ctgtgtcttg cgggtgaagga taccacagtc ggcaggtgac  
2760  
gtgcaagcgg acaaaagcca atggaactgt gcaggtggtg tctccaagag catgtgcccc  
2820  
taaagaccgg cctctgggaa gaaaaccatg ttttggatcat ccatgtgttc agtgggaacc  
2880  
aggggaaccg tgctcctggac gttgcatggg ccgtgctgtg aggatgcagc agcgtcacac  
2940  
agcttgtcaa cacaacagct ctgactccaa ctgtgatgac agaaagagac ccaccttaag  
3000  
aaggaaactgc acatcagggg cctgtgatgt gtgttggcac acaggccctt ggaagccctg  
3060  
tacagcagcc tgtggcaggg gtttccagtc tcggaaagtc gactgtatcc acacaaggag  
3120  
ttgcaaacct gtggccaaga gacactgtgt acagaaaaag aaaccaatct cctggcggca  
3180  
ctgtcttggg ccctcctgtg atagagactg cacagacaca actcactact gtatgtttgt  
3240  
aaaacatctt aatttgtgtt ctctagaccg ctacaaacaa aggtgctgcc agtcatgtca  
3300  
agagggataa acctttggag gggatcatgat gctgctgtga agataaaagt agaataataa  
3360  
agctcttttc cccatgtcgc tgattcaaaa acatgtatct cttaaaagac tagattctat  
3420  
ggatcaaaca gaggttgatg caaaaacacc actgttaagg tgtaaagtga aattttccaa  
3480  
tggtagtttt atattccaat tttttaaaat gatgtattca aggatgaaca aaatactata  
3540  
gcatgcatgc cactgcactt gggacctcat catgtcagtt gaatcgagaa atcaccaaga  
3600  
ttatgagtgc atcctcacgt gctgcctctt tctgtgata tgtagactag cacagagtgg  
3660  
tacatcctaa aaacttggga aacacagcaa cccatgactt cctcttctct caagttgcag  
3720  
gttttcaaca gttttataag gtatttgcac tttagaagct ctggccagta gttgttaaga  
3780  
tgttggcatt aatggcattt tcatagatcc ttggttagt ctgtgaaaaa gaaaccatct  
3840  
ctctggatag gctgtcacac tgactgacct aagggttcat ggaagcatgg catcttgtcc  
3900  
ttgcttttag aacacccatg gaagaaaaca cagagtagat attgctgtca tttatacaac  
3960  
tacagaaatt tatctatgac ctaatgaggc atctcggaag tcaaagaaga gggaaagtta  
4020  
accttttcta ctgatttcgt agtatattca gagctttctt ttaagagctg tgaatgaaac  
4080  
tttttctaag cactatttcta ttgcacacaa acagaaaacc aaagccttat tagaccta  
4140  
ttatgcataa agtagtatct ctgagaactt tttttggaa aatttataag aaagtaatcc  
4200

aaataagaaa cacgatatgt gaaaataatt tttatagtaa ataattgttt tgggctgatt  
 4260  
 tttcagtaaa tccaaagtga cttagggttag aagttacact aaggaccagg ggttggaatc  
 4320  
 agaatttagt ttaagatttg agggaaaggg taagggttag tttcagtttt aggattagag  
 4380  
 ctagaattgg gttagggtgag aaagaaagtt aagggttaagg ctagagttgt ctttaagggt  
 4440  
 taggggttag accagggttag gtcagggttg gattgggttt agattggggc cagtgcagggt  
 4500  
 gttagtata gtgtcaggat ggagggttagg tttggagtaa gcgttggtgc tgaagtgagt  
 4560  
 tcaggctagc attaaattgt aagttctgaa gctgatttgg ttatgggggc tttccctgt  
 4620  
 atactaccag ttgtgtcttt agatggcaca caagtccaaa taagtggcca tacttcttta  
 4680  
 ttcagggtct cagctgcctg tacacctgct gcctacatct tcttggcaac aaagttacct  
 4740  
 gccacaggct ctgctgagcc tagttcctgg tcagtaataa ctgaacagtg cttttgggt  
 4800  
 ttggatgtgt ctgtggacaa gcttgctgag tttctctacc atattctgag cacacgggtc  
 4860  
 cttttgttct aacttcagct tcaactgacac tgggttgagc actactgtat gtggaggggt  
 4920  
 tgggtgattgg gaatggatgg gggacagtga ggaggacaca ccagcccatt agttgttaat  
 4980  
 catcaatcac atctgattgt tgaagggttat taaattaaaa gaaagatcat ttgtaacata  
 5040  
 ctctttgtat atatttatta tatgaaagggt gcaatatttt attttgtaca gtatgtaata  
 5100  
 aagacatggg acatatattt ttcttattaa caaaatttca tattaaattg cttcactttg  
 5160  
 tatttaaagt taaaagttac tatttttcat ttgctattgt actttcattg ttgtcattca  
 5220  
 attgacattc ctgtgtactg tattttacta ctgtttttat aaatgagag ttaatgtttc  
 5280  
 tgtttcatga tccttatgta attcagaaat aaatttactt tgattattca gtggcatcct  
 5340  
 tat  
 5343

<210> 528

<211> 886

<212> PRT

<213> Homo sapiens

<400> 528

Xaa	Cys	Arg	Val	Leu	Leu	Thr	Phe	Thr	Gln	Thr	Glu	Thr	Glu	Leu	Pro
1				5				10					15		
Glu	Glu	Glu	Cys	Glu	Gly	Pro	Lys	Leu	Pro	Thr	Glu	Arg	Pro	Cys	Phe
			20					25					30		
Leu	Glu	Ala	Cys	Asp	Glu	Ser	Pro	Ala	Ser	Arg	Glu	Leu	Asp	Ile	Pro
			35					40					45		
Leu	Pro	Glu	Asp	Ser	Glu	Thr	Ala	Tyr	Asp	Trp	Glu	Tyr	Ala	Gly	Phe

50 55 60  
 Thr Pro Cys Thr Ala Thr Cys Leu Gly Gly His Gln Glu Ala Ile Ala  
 65 70 75 80  
 Val Cys Leu His Ile Gln Thr Gln Gln Thr Val Asn Asp Ser Leu Cys  
 85 90 95  
 Asp Met Val His Arg Pro Pro Ala Met Ser Gln Ala Cys Asn Thr Glu  
 100 105 110  
 Pro Cys Pro Pro Arg Trp His Val Gly Ser Trp Gly Pro Cys Ser Ala  
 115 120 125  
 Thr Cys Gly Val Gly Ile Gln Thr Arg Asp Val Tyr Cys Leu His Pro  
 130 135 140  
 Gly Glu Thr Pro Ala Pro Pro Glu Glu Cys Arg Asp Glu Lys Pro His  
 145 150 155 160  
 Ala Leu Gln Ala Cys Asn Gln Phe Asp Cys Pro Pro Gly Trp His Ile  
 165 170 175  
 Glu Glu Trp Gln Gln Cys Ser Arg Thr Cys Gly Gly Gly Thr Gln Asn  
 180 185 190  
 Arg Arg Val Thr Cys Arg Gln Leu Leu Thr Asp Gly Ser Phe Leu Asn  
 195 200 205  
 Leu Ser Asp Glu Leu Cys Gln Gly Pro Lys Ala Ser Ser His Lys Ser  
 210 215 220  
 Cys Ala Arg Thr Asp Cys Pro Pro His Leu Ala Val Gly Asp Trp Ser  
 225 230 235 240  
 Lys Cys Ser Val Ser Cys Gly Val Gly Ile Gln Arg Arg Lys Gln Val  
 245 250 255  
 Cys Gln Arg Leu Ala Ala Lys Gly Arg Arg Ile Pro Leu Ser Glu Met  
 260 265 270  
 Met Cys Arg Asp Leu Pro Gly Leu Pro Leu Val Arg Ser Cys Gln Met  
 275 280 285  
 Pro Glu Cys Ser Lys Ile Lys Ser Glu Met Lys Thr Lys Leu Gly Glu  
 290 295 300  
 Gln Gly Pro Gln Ile Leu Ser Val Gln Arg Val Tyr Ile Gln Thr Arg  
 305 310 315 320  
 Glu Glu Lys Arg Ile Asn Leu Thr Ile Gly Ser Arg Ala Tyr Leu Leu  
 325 330 335  
 Pro Asn Thr Ser Val Ile Ile Lys Cys Pro Val Arg Arg Phe Gln Lys  
 340 345 350  
 Ser Leu Ile Gln Trp Glu Lys Asp Gly Arg Cys Leu Gln Asn Ser Lys  
 355 360 365  
 Arg Leu Gly Ile Thr Lys Ser Gly Ser Leu Lys Ile His Gly Leu Ala  
 370 375 380  
 Ala Pro Asp Ile Gly Val Tyr Arg Cys Ile Ala Gly Ser Ala Gln Glu  
 385 390 395 400  
 Thr Val Val Leu Lys Leu Ile Gly Thr Asp Asn Arg Leu Ile Ala Arg  
 405 410 415  
 Pro Ala Leu Arg Glu Pro Met Arg Glu Tyr Pro Gly Met Asp His Ser  
 420 425 430  
 Glu Ala Asn Ser Leu Gly Val Thr Trp His Lys Met Arg Gln Met Trp  
 435 440 445  
 Asn Asn Lys Asn Asp Leu Tyr Leu Asp Asp Asp His Ile Ser Asn Gln  
 450 455 460  
 Pro Phe Leu Arg Ala Leu Leu Gly His Cys Ser Asn Ser Ala Gly Ser  
 465 470 475 480  
 Thr Asn Ser Trp Glu Leu Lys Asn Lys Gln Phe Glu Ala Ala Val Lys



```
<210> 529
<211> 4566
```

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 529

nggcgagcta agccggagga tgtgcagctg cggcggcggc gccggctacg aagaggacgg  
60  
ggacaggcgc cgtgcgaacc gagcccagcc agccggagga cgcgggcagg gcgggacggg  
120  
agcccggact cgtctgccgc cgccgtcgtc gccgtcgtgc cggccccgcg tccccgcgcg  
180  
cgagcgggag gagccgccgc cacctcgcgc ccgagccgcc gctagcgcgc gccgggcatg  
240  
gtccccctctt aaaggcgag gccgcggcgg cgggggcggg cgtgcggaac aaagcgccgg  
300  
cgcggggcct gcgggcggct cgggggcccgc gatgggcgcg gcgggcccgc ggcggcggcg  
360  
gcgtgcccg ggccgggcct cgcggcgcta gggcgggctg gcctccgcgg gcgggggacg  
420  
cgggctgagg gcgcgcgggg cctgcggcgg cggcggcggc ggcggcggcg gcccggcggg  
480  
cggagcggcg cgggcatggc cgcgcgcggc cggcgcgccct ggctcagcgt gctgctcggg  
540  
ctcgtcctgg gcttcgtgct ggcctcgcgg ctcgtcctgc cccgggcttc cgagctgaag  
600  
cgagcgggcc cacggcgccg cgccagcccc gagggctgcc ggtccgggca ggcggcggct  
660  
tcccaggccg gcggggcgcg cggcgatgcg cgcggggcgc agctctggcc gcccggtcgc  
720  
gaccagatg gcggcccgcg cgacaggaac tttctcttcg tgggagtcac gaccgccag  
780  
aaatacctgc agactcgggc cgtggccgcc tacagaacat ggtccaagac aattcctggg  
840  
aaagttcagt tcttctcaag tgagggttct gacacatctg taccaattcc agtagtgcca  
900  
ctacggggtg tggacgactc ctacccgccc cagaagaagt ccttcacgat gctcaagtac  
960  
atgcacgacc actacttgga caagtatgaa tggtttatga gagcagatga tgacgtgtac  
1020  
atcaaaggag accgtctgga gaacttcctg aggagtgtga acagcagcga gccctcttt  
1080  
cttgggcaga caggcctggg caccacggaa gaaatgggaa aactggccct ggagcctggt  
1140  
gagaacttct gcatgggggg gcctggcggt atcatgagcc gggagggtgct tcggagaatg  
1200  
gtgccgcaca ttggcaagtg tctccgggag atgtacacca cccatgagga cgtggagggtg  
1260  
ggaagggtgtg tccggagggt tgcaggggtg cagtgtgtct ggtcttatga gatgcagcag  
1320  
cttttttatg agaattacga gcagaacaaa aaggggtaca ttagagatct ccataacagt  
1380  
aaaattcacc aagctatcac attacacccc aacaaaaacc caccctacca gtacaggctc  
1440  
cacagctaca tgctgagccg caagatatcc gagctccgcc atcgacacat acagctgcac  
1500

cgcgaaattg tcctgatgag caaatacagc aacacagaaa ttcataaaga ggacctccag  
1560  
ctgggaatcc ctccctcctt catgagggtt cagccccgcc agcgagagga gattctggaa  
1620  
tgggagtttc tgactggaaa atacttgat tggcgagttg acggccagcc cctcgaaga  
1680  
ggaatggact ccgcccagag ggaagccttg gacgacattg tcatgcaggt catggagatg  
1740  
atcaatgcc aacccaagac cagagggcgc atcattgact tcaaagagat ccagtacggc  
1800  
taccgccggg tgaaccccat gtatggggct gagtacatcc tggacctgct gcttctgtac  
1860  
aaaaagcaca aaggggaagaa aatgacggc cctgtgagga ggcacgcgta ttacagcag  
1920  
actttcagca aaatccagtt tgtggagcat gaggagctgg atgcacaaga gttggccaag  
1980  
agaatcaatc aggaatctgg atccttgctc ttctctcaa actcctgaa gaagctcgtc  
2040  
ccctttcagc tccctgggtc gaagagtga cacaagaac ccaaagataa aaagataaac  
2100  
atactgattc ctttgtctgg gcgtttcgac atgtttgtga gatttatggg aaactttgag  
2160  
aagacgtgtc ttatcccaa tcagaacgtc aagctcgtgg ttctgctttt caattctgac  
2220  
tccaaccctg acaaggccaa acaagttgaa ctgatgacag attaccgcat taagtacct  
2280  
aaagccgaca tgcagatttt gcctgtgtct ggagagtttt caagagccct ggccctggaa  
2340  
gtaggatcct ccagtttaa caatgaatct ttgtcttct tctgcgacgt cgacctcgtg  
2400  
tttactacag aattccttca gcgatgtcga gcaaatacag ttctgggcca acaatatat  
2460  
tttccaatca tcttcagcca gtatgacca aagattgttt atagtgggaa agttcccagt  
2520  
gacaaccatt ttgcctttac tcagaaaact ggcttctgga gaaactatgg gtttggcatc  
2580  
acgtgtattt ataagggaga tcttgctcga gtgggtggct ttgatgtttc catccaaggc  
2640  
tgggggctgg aggatgtgga ccttttcaac aaggttgctc aggcagggtt gaagacgttt  
2700  
aggagccagg aagtaggagt agtccacgtc caccatcctg tcttttgtga tcccaatctt  
2760  
gaccccaaac agtacaaaat gtgcttgggg tccaaagcat cgacctatgg gtccacacag  
2820  
cagctggctg agatgtggct ggaaaaaat gatccaagtt acagtaaaag cagcaataat  
2880  
aatggctcag tgaggacagc ctaatgtcca gctttgctgg aaaagacgtt ttaattatc  
2940  
taatttattt ttcaaaaatt tttgtatga tcagtttttg aagtccttat acaaggatat  
3000  
attttacaag tggttttctt acataggact cctttaagat tgagctttct gaacaagaag  
3060  
gtgatcagt tttgccttg aacacatctt cttgctgaac attatgtagc agacctgctt  
3120

aactttgact tgaaatgtac ctgatgaaca aaactttttt aaaaaaatgt tttcttttga  
3180  
gaccctttgc tccagtccta tggcagaaaa cgtgaacatt cctgcaaagt attattgtaa  
3240  
caaaacactg taactctggt aaatgttctg ttgtgattgt taacattcca cagattctac  
3300  
cttttgtgtt ttgttttttt ttttttacia ttgttttaaa gccatttcat gttccagtgt  
3360  
taagataagg aaatgtgata atagctgttt catcattgtc ttcaggagag ctttccagag  
3420  
ttgatcattt cccctcatgg tactctgtct agcatggcca cgtaggtttt ttgtttgttt  
3480  
tgttttgttc tttttttgag acggagtctc actctgttac ccaggctgga atgcagtggc  
3540  
gcaatcttgg ctactttta cctccacttc cctggttcaa gcaattcccc tgcctttgcc  
3600  
tcccgagtag ctgggattac aggcacacac caccacgccc agctagtttt tttgtatttt  
3660  
tagtagagac ggggtttcac catgcaagcc cagctggcca cgtaggtttt aaagcaaggg  
3720  
gcgtgaagaa ggcacagtga ggtatgtggc tgttctcgtg gtagttcatt cggcctaaat  
3780  
agacctggca ttaaatttca agaaggattt ggcattttct cttcttgacc cttctcttta  
3840  
aagggtaaaa tattaatgtt tagaatgaca aagatgaatt attacaataa atctgatgta  
3900  
cacagactga aacacacaca cataccct aatcaaaacg ttggggaaaa atgtatttgg  
3960  
ttttgttctt ttcattctgt ctgtgttatg tgggtggaga tggttttcat tctttcatta  
4020  
ctgttttgtt ttatcctttg tatctgaaat accttaatt tatttaatat ctgttgttca  
4080  
gagctctgcc atttcttgag tacctgttag ttagtattat ttatgtgtat cgggagtgtg  
4140  
tttagtctgt tttatttgca gtaaaccgat ctccaaagat ttccttttgg aaacgctttt  
4200  
tcccctcctt aatttttata ttccttactg ttttactaaa tattaagtgt tctttgacaa  
4260  
ttttggtgct catgtgtttt ggggacaaaa gtgaaatgaa tctgtcatta taccagaaag  
4320  
ttaaattctc agatcaaagt tgccttaata aatttgtttt catttagatt tcaaacagtg  
4380  
atagacttgc catttttaata cacgtcattg gagggctgag tatttgtaaa tagcctgatg  
4440  
ctcatttggg aaaataaacc agtgaacaat atttttctat tgtacttttc gaaccatttt  
4500  
gtctcattat tcctgtttta gctgaagaat tgtattacat ttggagagta aaaaacttaa  
4560  
acacga  
4566

&lt;210&gt; 530

&lt;211&gt; 802

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 530

```

Met Ala Ala Arg Gly Arg Arg Ala Trp Leu Ser Val Leu Leu Gly Leu
 1           5           10           15
Val Leu Gly Phe Val Leu Ala Ser Arg Leu Val Leu Pro Arg Ala Ser
           20           25           30
Glu Leu Lys Arg Ala Gly Pro Arg Arg Arg Ala Ser Pro Glu Gly Cys
           35           40           45
Arg Ser Gly Gln Ala Ala Ala Ser Gln Ala Gly Gly Ala Arg Gly Asp
           50           55           60
Ala Arg Gly Ala Gln Leu Trp Pro Pro Gly Ser Asp Pro Asp Gly Gly
           65           70           75           80
Pro Arg Asp Arg Asn Phe Leu Phe Val Gly Val Met Thr Ala Gln Lys
           85           90           95
Tyr Leu Gln Thr Arg Ala Val Ala Tyr Arg Thr Trp Ser Lys Thr
           100          105          110
Ile Pro Gly Lys Val Gln Phe Phe Ser Ser Glu Gly Ser Asp Thr Ser
           115          120          125
Val Pro Ile Pro Val Val Pro Leu Arg Gly Val Asp Asp Ser Tyr Pro
           130          135          140
Pro Gln Lys Lys Ser Phe Met Met Leu Lys Tyr Met His Asp His Tyr
           145          150          155          160
Leu Asp Lys Tyr Glu Trp Phe Met Arg Ala Asp Asp Asp Val Tyr Ile
           165          170          175
Lys Gly Asp Arg Leu Glu Asn Phe Leu Arg Ser Leu Asn Ser Ser Glu
           180          185          190
Pro Leu Phe Leu Gly Gln Thr Gly Leu Gly Thr Thr Glu Glu Met Gly
           195          200          205
Lys Leu Ala Leu Glu Pro Gly Glu Asn Phe Cys Met Gly Gly Pro Gly
           210          215          220
Val Ile Met Ser Arg Glu Val Leu Arg Arg Met Val Pro His Ile Gly
           225          230          235          240
Lys Cys Leu Arg Glu Met Tyr Thr Thr His Glu Asp Val Glu Val Gly
           245          250          255
Arg Cys Val Arg Arg Phe Ala Gly Val Gln Cys Val Trp Ser Tyr Glu
           260          265          270
Met Gln Gln Leu Phe Tyr Glu Asn Tyr Glu Gln Asn Lys Lys Gly Tyr
           275          280          285
Ile Arg Asp Leu His Asn Ser Lys Ile His Gln Ala Ile Thr Leu His
           290          295          300
Pro Asn Lys Asn Pro Pro Tyr Gln Tyr Arg Leu His Ser Tyr Met Leu
           305          310          315          320
Ser Arg Lys Ile Ser Glu Leu Arg His Arg Thr Ile Gln Leu His Arg
           325          330          335
Glu Ile Val Leu Met Ser Lys Tyr Ser Asn Thr Glu Ile His Lys Glu
           340          345          350
Asp Leu Gln Leu Gly Ile Pro Pro Ser Phe Met Arg Phe Gln Pro Arg
           355          360          365
Gln Arg Glu Glu Ile Leu Glu Trp Glu Phe Leu Thr Gly Lys Tyr Leu
           370          375          380
Tyr Ser Ala Val Asp Gly Gln Pro Pro Arg Arg Gly Met Asp Ser Ala
           385          390          395          400
Gln Arg Glu Ala Leu Asp Asp Ile Val Met Gln Val Met Glu Met Ile

```

405 410 415  
 Asn Ala Asn Ala Lys Thr Arg Gly Arg Ile Ile Asp Phe Lys Glu Ile  
 420 425 430  
 Gln Tyr Gly Tyr Arg Arg Val Asn Pro Met Tyr Gly Ala Glu Tyr Ile  
 435 440 445  
 Leu Asp Leu Leu Leu Leu Tyr Lys Lys His Lys Gly Lys Lys Met Thr  
 450 455 460  
 Val Pro Val Arg Arg His Ala Tyr Leu Gln Gln Thr Phe Ser Lys Ile  
 465 470 475 480  
 Gln Phe Val Glu His Glu Glu Leu Asp Ala Gln Glu Leu Ala Lys Arg  
 485 490 495  
 Ile Asn Gln Glu Ser Gly Ser Leu Ser Phe Leu Ser Asn Ser Leu Lys  
 500 505 510  
 Lys Leu Val Pro Phe Gln Leu Pro Gly Ser Lys Ser Glu His Lys Glu  
 515 520 525  
 Pro Lys Asp Lys Lys Ile Asn Ile Leu Ile Pro Leu Ser Gly Arg Phe  
 530 535 540  
 Asp Met Phe Val Arg Phe Met Gly Asn Phe Glu Lys Thr Cys Leu Ile  
 545 550 555 560  
 Pro Asn Gln Asn Val Lys Leu Val Val Leu Leu Phe Asn Ser Asp Ser  
 565 570 575  
 Asn Pro Asp Lys Ala Lys Gln Val Glu Leu Met Thr Asp Tyr Arg Ile  
 580 585 590  
 Lys Tyr Pro Lys Ala Asp Met Gln Ile Leu Pro Val Ser Gly Glu Phe  
 595 600 605  
 Ser Arg Ala Leu Ala Leu Glu Val Gly Ser Ser Gln Phe Asn Asn Glu  
 610 615 620  
 Ser Leu Leu Phe Phe Cys Asp Val Asp Leu Val Phe Thr Thr Glu Phe  
 625 630 635 640  
 Leu Gln Arg Cys Arg Ala Asn Thr Val Leu Gly Gln Gln Ile Tyr Phe  
 645 650 655  
 Pro Ile Ile Phe Ser Gln Tyr Asp Pro Lys Ile Val Tyr Ser Gly Lys  
 660 665 670  
 Val Pro Ser Asp Asn His Phe Ala Phe Thr Gln Lys Thr Gly Phe Trp  
 675 680 685  
 Arg Asn Tyr Gly Phe Gly Ile Thr Cys Ile Tyr Lys Gly Asp Leu Val  
 690 695 700  
 Arg Val Gly Gly Phe Asp Val Ser Ile Gln Gly Trp Gly Leu Glu Asp  
 705 710 715 720  
 Val Asp Leu Phe Asn Lys Val Val Gln Ala Gly Leu Lys Thr Phe Arg  
 725 730 735  
 Ser Gln Glu Val Gly Val Val His Val His His Pro Val Phe Cys Asp  
 740 745 750  
 Pro Asn Leu Asp Pro Lys Gln Tyr Lys Met Cys Leu Gly Ser Lys Ala  
 755 760 765  
 Ser Thr Tyr Gly Ser Thr Gln Gln Leu Ala Glu Met Trp Leu Glu Lys  
 770 775 780  
 Asn Asp Pro Ser Tyr Ser Lys Ser Ser Asn Asn Asn Gly Ser Val Arg  
 785 790 795 800  
 Thr Ala

&lt;210&gt; 531

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

ngatgatgaa tccccccgca gcctcgtcaa tatggggggc ttcctacccc agcaaaaaggc  
 60  
 acggcaatac gtctcgaaca aagggtctttt gtttcgaaat aacaaggggt tagagctaag  
 120  
 aggaagaagc gtgaaacgct gtaggaccag cgtttcgaac gcccccgagg tgaaccctcg  
 180  
 ggggctgctg aatcaggcca gttgggcctg ggacgacagc ggttgacagc gcagcaatgg  
 240  
 cgcgtgcgga tcagccttga tcgattcacg ccaggcgccg agccactcgg cgtggccttc  
 300  
 gttccacacc tgctggtgca g  
 321

&lt;210&gt; 532

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

Met	Gly	Gly	Phe	Leu	Pro	Gln	Gln	Lys	Ala	Arg	Gln	Tyr	Val	Ser	Asn
1				5					10					15	
Lys	Gly	Leu	Leu	Phe	Arg	Asn	Asn	Lys	Gly	Leu	Glu	Leu	Arg	Gly	Arg
			20					25					30		
Ser	Val	Lys	Arg	Cys	Arg	Thr	Ser	Val	Ser	Asn	Ala	Pro	Glu	Val	Asn
			35				40					45			
Pro	Arg	Gly	Arg	Leu	Asn	Gln	Ala	Ser	Trp	Ala	Trp	Asp	Asp	Ser	Gly
			50			55				60					
Cys	Ser	Gly	Ser	Asn	Gly	Ala	Cys	Gly	Ser	Ala	Leu	Ile	Asp	Ser	Arg
65					70					75				80	
Gln	Ala	Pro	Ser	His	Ser	Ala	Trp	Pro	Ser	Phe	His	Thr	Cys	Trp	Cys
				85				90						95	

&lt;210&gt; 533

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 533

nagtttccgg tgaaccgctc cgcaatgcct cgtgacatcg acttcagcga agccaacagg  
 60  
 agcatcatcg acaacatggc aactgcctca atcccgtttt tccgaaccca caaaaactgg  
 120  
 gagacgtggg cgagtcagggt ccggcatttc attagccttt tacacccaaa agtcaccctc  
 180  
 accaacattg acaacgtcct caacaaagat cacctgcgtt ggctacactt tcttttggag  
 240  
 ggtcgcctgg agccaaacgt ggcctgatt gtccagggtt actgttcgcc tggcaagctg  
 300  
 taccgcaagc ttgaggagct atatgccct tctgc  
 335

<210> 534  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 534  
 Met Pro Arg Asp Ile Asp Phe Ser Glu Ala Asn Arg Ser Ile Ile Asp  
 1 5 10 15  
 Asn Met Ala Thr Ala Ser Ile Pro Leu Phe Arg Thr His Lys Asn Trp  
 20 25 30  
 Glu Thr Trp Ser Ser Gln Val Arg His Phe Ile Ser Leu Leu His Pro  
 35 40 45  
 Lys Val Thr Leu Thr Asn Ile Asp Asn Val Leu Asn Lys Asp His Leu  
 50 55 60  
 Arg Trp Leu His Phe Leu Leu Glu Gly Arg Leu Glu Pro Asn Val Arg  
 65 70 75 80  
 Leu Ile Val Gln Gly Tyr Cys Ser Pro Gly Lys Leu Tyr Arg Lys Leu  
 85 90 95  
 Glu Glu Leu Tyr Ala Pro Ser  
 100

<210> 535  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 535  
 acgctgtctct acagccggac taagcacagg ctcagccccc gtcgccatgc gcccaggctc  
 60  
 gggtatcagc cgaggaatcc acggcgaaat gaccagtagc ggccctaata caactatgct  
 120  
 gccgagcagc agacgtcgag gtcgggtcat gaggatgccg acggccaccg cgaccgggta  
 180  
 taccacaat gcaggaacaa ggctgatagc tagggctgac cacagagcca ggccgcctgc  
 240  
 cgaggaaacg cccccacct ggtgactgcc agtatcagca ccgcgcagct caacgacgtc  
 300  
 aacagtctcg ggattgacca accgccacgt atgcagggcc atgtggggga gaatcacccc  
 360  
 caacgccaat gctgtcaccg agcctcgggc taggcgcgcg gc  
 402

<210> 536  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 536  
 Met Ala Leu His Thr Trp Arg Leu Val Asn Pro Glu Thr Val Asp Val  
 1 5 10 15  
 Val Glu Leu Arg Gly Ala Asp Thr Gly Ser His Gln Val Gly Gly Val  
 20 25 30  
 Ser Ser Ala Gly Gly Leu Ala Leu Trp Ser Ala Leu Ala Ile Ser Leu



```

      35              40              45
Val Pro Ala Leu Trp Val Tyr Pro Val Ala Val Ala Val Gly Ile Leu
      50              55              60
Met Thr Arg Pro Arg Arg Leu Leu Leu Gly Ser Ile Val Val Leu Gly
65              70              75              80
Pro Leu Leu Val Ile Ser Pro Trp Ile Pro Arg Leu Ile Thr Glu Pro
      85              90              95
Gly Arg Met Ala Thr Gly Ala Glu Pro Val Leu Ser Pro Ala Val Glu
      100              105              110
Thr Arg

```

&lt;210&gt; 537

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 537

```

gtgcacatcg gcggcaccga cttcgacaaa caactctcgc tggctggcat gatgccgctg
60
ttcggctacg gcagccgcat gaagagcggc gcctacatgc ccaccagcca ccacatgaac
120
ctggcgacct ggacacccat caactcgggtg tactcgcaaa aatcccagct ggcctggggc
180
agcatgcgct acgacatcga agacaccggc ggcacgcacc gcctgttcaa gctgatcgaa
240
cagcgtgctg ggcactgggt tgccatggaa gtggaagaaa ccaagatcca gtcacccat
300
caagacagcc gccacgtgcc gctggaccgc atcgaagcgg gcctgagcgt agacctgagc
360
cgggcgctgt tcgaatcgtc catcgacaac ctgctcgaac gcgt
404

```

&lt;210&gt; 538

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 538

```

Met Met Pro Leu Phe Gly Tyr Gly Ser Arg Met Lys Ser Gly Ala Tyr
1              5              10              15
Met Pro Thr Ser His His Met Asn Leu Ala Thr Trp His Thr Ile Asn
      20              25              30
Ser Val Tyr Ser Gln Lys Ser Gln Leu Ala Leu Gly Ser Met Arg Tyr
      35              40              45
Asp Ile Glu Asp Thr Gly Gly Ile Asp Arg Leu Phe Lys Leu Ile Glu
      50              55              60
Gln Arg Ala Gly His Trp Leu Ala Met Glu Val Glu Glu Thr Lys Ile
65              70              75              80
Gln Leu Thr His Gln Asp Ser Arg His Val Pro Leu Asp Arg Ile Glu
      85              90              95
Ala Gly Leu Ser Val Asp Leu Ser Arg Ala Leu Phe Glu Ser Ser Ile
      100              105              110
Asp Asn Leu Leu Glu Arg

```

115

<210> 539  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 539  
 nnacgcgtga aaaagaagaa aatgaaggaa agcgaggctg acagcgagggt gaagcatcaa  
 60  
 ccaattttca taaaagaaag attgaagctt tttgaaatac tgaagaaaga ccatcagctc  
 120  
 ttacttgcca tttatggaaa aaagggggat acaagcaaca tcacacagct aagagtggct  
 180  
 gatgggcaaa cagtgcagg ggaagtctgg aaaacaacgc cttaccaagt ggctgctgaa  
 240  
 attagtcagg aactggctga aagcacggta atagccaaag tcaatgggtga actgtgggac  
 300  
 ctggaccgcc cattggaagg ggactcttct ctagagctgc ttacatttga taatgaggaa  
 360  
 gctcaagctg tgagtatttt aaaaccagac agccaaactt tgggtagtta tgttgtaaac  
 420  
 tacattatat aagaggccac atattgaatt cacgaatgtt gagttttttg ggggtttcta  
 480  
 agatttaaaa tttgattatt gatgtttaat aaatatttgc ctcatgaatg ttaa  
 534

<210> 540  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 540  
 Xaa Arg Val Lys Lys Lys Lys Met Lys Glu Ser Glu Ala Asp Ser Glu  
 1 5 10 15  
 Val Lys His Gln Pro Ile Phe Ile Lys Glu Arg Leu Lys Leu Phe Glu  
 20 25 30  
 Ile Leu Lys Lys Asp His Gln Leu Leu Leu Ala Ile Tyr Gly Lys Lys  
 35 40 45  
 Gly Asp Thr Ser Asn Ile Ile Thr Val Arg Val Ala Asp Gly Gln Thr  
 50 55 60  
 Val Gln Gly Glu Val Trp Lys Thr Thr Pro Tyr Gln Val Ala Ala Glu  
 65 70 75 80  
 Ile Ser Gln Glu Leu Ala Glu Ser Thr Val Ile Ala Lys Val Asn Gly  
 85 90 95  
 Glu Leu Trp Asp Leu Asp Arg Pro Leu Glu Gly Asp Ser Ser Leu Glu  
 100 105 110  
 Leu Leu Thr Phe Asp Asn Glu Glu Ala Gln Ala Val Ser Ile Leu Lys  
 115 120 125  
 Pro Asp Ser Gln Thr Leu Gly Ser Tyr Val Val Asn Tyr Ile Ile  
 130 135 140

<210> 541  
 <211> 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 541

ggtaccgagc tgcgcgtgtg gtatgcggcc ttctatgcc aagaatgga caagcccatg  
 60  
 ctgaagcagg ccggctctgg cgtccacgct gcaggcaccc cagaaaacag cgcccccg  
 120  
 gagtcggagc ccagccagtg ggcgtgtaaa gtgtgttctg ccaccttctt ggagctgcag  
 180  
 ctctcaatg gtaaggagga cgtgtgggga gccccagttg taaaactcct gtgtcgattt  
 240  
 ctctctgact tacgctgtca cctgtctgcg gctgtcgggg gtgtcccaga ctttgtctctg  
 300  
 tctgccccat tgccccacaa tgtagtgcgc agaaccaagg ctttctcagg gtttaaagct  
 360  
 tctgggcagt cccgcttccc acccccgacc cctgcaggcc tcaactctca ctctctctg  
 420  
 ttgggaagtt gcatttcagc tgggcgcctt gactctggag cactggcagg ggccaggggc  
 480  
 caggagccag ccgtggcatg tgttgtgcac tcttgccctt gttgtctcta cttgacagcc  
 540  
 ccctcacgcg t  
 551

&lt;210&gt; 542

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 542

Met	Asp	Lys	Pro	Met	Leu	Lys	Gln	Ala	Gly	Ser	Gly	Val	His	Ala	Ala
1				5					10					15	
Gly	Thr	Pro	Glu	Asn	Ser	Ala	Pro	Val	Glu	Ser	Glu	Pro	Ser	Gln	Trp
			20					25					30		
Ala	Cys	Lys	Val	Cys	Ser	Ala	Thr	Phe	Leu	Glu	Leu	Gln	Leu	Leu	Asn
		35					40					45			
Gly	Lys	Glu	Asp	Val	Trp	Gly	Ala	Pro	Val	Val	Lys	Leu	Leu	Cys	Arg
	50					55					60				
Phe	Leu	Ser	Asp	Leu	Arg	Cys	His	Leu	Ser	Ala	Ala	Val	Gly	Gly	Val
65					70					75				80	
Pro	Asp	Phe	Val	Leu	Ser	Ala	Pro	Leu	Pro	His	Asn	Val	Val	Ala	Arg
			85						90					95	
Thr	Lys	Ala	Phe	Ser	Gly	Phe	Lys	Ala	Ser	Gly	Gln	Ser	Arg	Phe	Pro
		100						105					110		
Pro	Pro	Thr	Pro	Ala	Gly	Leu	Thr	Pro	His	Ser	Ser	Trp	Leu	Gly	Ser
		115				120						125			
Cys	Ile	Ser	Ala	Gly	Arg	Leu	Asp	Ser	Gly	Ala	Leu	Ala	Gly	Ala	Arg
	130					135						140			
Gly	Gln	Glu	Pro	Ala	Val	Ala	Cys	Val	Val	His	Ser	Cys	Leu	Cys	Cys
145					150					155				160	
Leu	Tyr	Leu	Thr	Ala	Pro	Ser	Arg								
				165											

<210> 543  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 543  
 nnaaagccgg acatgaatac ccgcattgct ggcaaaactg tcctgaccat cattctggcc  
 60  
 ggggggcaaag gcagccgcct ggccccgatg accgatcagg tggccaaacc agccgtgccg  
 120  
 tttatgggga cgtaccgcct gattgacttt tcgctgtcca acattgtcca cagcggcttg  
 180  
 caggacgtct ggatcattga gcaaaacctg ccccatagct taaacgagca cctggctggg  
 240  
 gggcgctcct gggatctgga ccgcacccgc ggtggcctga aggtcatgcc gcccttttcc  
 300  
 ggccctgccg atgaggacgg tggcttttcc gaaggcaacg cacacgcgt  
 349

<210> 544  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 544  
 Xaa Lys Pro Asp Met Asn Thr Arg Ile Ala Gly Lys Thr Val Leu Thr  
 1 5 10 15  
 Ile Ile Leu Ala Gly Gly Lys Gly Ser Arg Leu Ala Pro Met Thr Asp  
 20 25 30  
 Gln Val Ala Lys Pro Ala Val Pro Phe Met Gly Thr Tyr Arg Leu Ile  
 35 40 45  
 Asp Phe Ser Leu Ser Asn Ile Val His Ser Gly Leu Gln Asp Val Trp  
 50 55 60  
 Ile Ile Glu Gln Asn Leu Pro His Ser Leu Asn Glu His Leu Ala Gly  
 65 70 75 80  
 Gly Arg Ser Trp Asp Leu Asp Arg Thr Arg Gly Gly Leu Lys Val Met  
 85 90 95  
 Pro Pro Phe Ser Gly Pro Ala Asp Glu Asp Gly Gly Phe Ser Glu Gly  
 100 105 110  
 Asn Ala His Ala  
 115

<210> 545  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 545  
 catgatgcaa aaacagacat gcttatttca aaatataaaa gtgaaaaaga tcgttttagca  
 60  
 caagaaattg ttggtgtcat cacagggttct gcaatgccgg gtggttcagc aaaccgtatc  
 120  
 ccaaataaag caggctcaaa tccagaaggt tctattgcaa cgcgttttat tgcagaaaca  
 180

atgtataacg aactcaaaac agtggattta actattcaaa atgctggcgg tgtacgcgca  
 240  
 gatattttac cggggaatgt aacctttaac gatgcttata ctttcttacc ttccgggaat  
 300  
 acgttatata cctataaaat ggaaagttca ttagtgaaac aagtgcctga agatgcaatg  
 360  
 ctatttgctt tgggtcccc ccccccccc  
 390

<210> 546  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 546  
 His Asp Ala Lys Thr Asp Met Leu Ile Ser Lys Tyr Lys Ser Glu Lys  
 1 5 10 15  
 Asp Arg Leu Ala Gln Glu Ile Val Gly Val Ile Thr Gly Ser Ala Met  
 20 25 30  
 Pro Gly Gly Ser Ala Asn Arg Ile Pro Asn Lys Ala Gly Ser Asn Pro  
 35 40 45  
 Glu Gly Ser Ile Ala Thr Arg Phe Ile Ala Glu Thr Met Tyr Asn Glu  
 50 55 60  
 Leu Lys Thr Val Asp Leu Thr Ile Gln Asn Ala Gly Gly Val Arg Ala  
 65 70 75 80  
 Asp Ile Leu Pro Gly Asn Val Thr Phe Asn Asp Ala Tyr Thr Phe Leu  
 85 90 95  
 Pro Phe Gly Asn Thr Leu Tyr Thr Tyr Lys Met Glu Ser Ser Leu Val  
 100 105 110  
 Lys Gln Val Leu Glu Asp Ala Met Leu Phe Ala Leu Gly Pro Pro Pro  
 115 120 125  
 Pro Pro  
 130

<210> 547  
 <211> 306  
 <212> DNA  
 <213> Homo sapiens

<400> 547  
 aagcttggtt ttctgatttt tattcaaate tctatcatgg atgaagcatg cagtttcaga  
 60  
 atcagttcag tggtgacaac atatcaagat attctgcagt caatctcaat gtatgttcat  
 120  
 gaagcctcca acatattttg tgggatacca tctttgtcag gcattgtgct aggcactgtc  
 180  
 cctgcagtga ataagaaaga caggatttct gtatttatgg ggcttagtac caagttgttc  
 240  
 tcaaactttc atgtttgtgt atacaaatca gctgaggcct tcactaaact cnnnnnccnn  
 300  
 nnnccnn  
 306

<210> 548

<211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 548  
 Met Asp Glu Ala Cys Ser Phe Arg Ile Ser Ser Val Leu Thr Thr Tyr  
 1 5 10 15  
 Gln Asp Ile Leu Gln Ser Ile Ser Met Tyr Val His Glu Ala Ser Asn  
 20 25 30  
 Ile Phe Cys Gly Ile Pro Ser Leu Ser Gly Ile Val Leu Gly Thr Val  
 35 40 45  
 Pro Ala Val Asn Lys Lys Asp Arg Ile Ser Val Phe Met Gly Leu Ser  
 50 55 60  
 Thr Lys Leu Phe Ser Asn Phe His Val Cys Val Tyr Lys Ser Ala Glu  
 65 70 75 80  
 Ala Phe Thr Lys Leu Xaa Xaa Xaa Xaa Xaa  
 85 90

<210> 549  
 <211> 780  
 <212> DNA  
 <213> Homo sapiens

<400> 549  
 nnacgcgtac ttccaacacc tatgctccag tatggaggac gggtaaagtc tcttggttaat  
 60  
 gttttaatca tacacatatt gtctgtaagt atgaagagaa aggcataatca gaaatatttc  
 120  
 aattcagcga tttgaaatgt ttactttctg tttattgaaa atttttgttc tttttcacca  
 180  
 tgttattttt ttctcctcgt gtagaatcgg acagtagcaa caccgagcca tggagtatgg  
 240  
 gacatgcgag ggaaacaatt ccacacagga gttgaaatca aaatgtgggc tatcgcttgt  
 300  
 tttgccacac agaggcagtg cagagaagaa atattgaagg gtttcacaga ccagctgcgt  
 360  
 aagatttcta aggatgcagg gatgcccatc cagggccagc catgcttctg caaatatgca  
 420  
 cagggggcag acagcgtaga gcccatgttc cggcatctca agaacacata ttctggccta  
 480  
 cagcttatta tcgtcatcct gccggggaag acaccagtgt atgcggaagt gaaacgtgta  
 540  
 ggagacacac ttttgggtat ggctacacaa tgtgttcaag tcaagaatgt aataaaaaca  
 600  
 tctcctcaaa ctctgtcaaa cttgtgccta aagataaatg ttaaactcgg agggatcaat  
 660  
 aatattcttg tacctcatca aagaccttct gtgttccagc aaccagtgat ctttttggga  
 720  
 gccgatgtca ctcatccacc tgctggtgat ggaaagaagc cttctattgc tgctgttgta  
 780

<210> 550  
 <211> 192  
 <212> PRT

<213> Homo sapiens

<400> 550

```

Asn Arg Thr Val Ala Thr Pro Ser His Gly Val Trp Asp Met Arg Gly
 1           5           10           15
Lys Gln Phe His Thr Gly Val Glu Ile Lys Met Trp Ala Ile Ala Cys
           20           25           30
Phe Ala Thr Gln Arg Gln Cys Arg Glu Glu Ile Leu Lys Gly Phe Thr
           35           40           45
Asp Gln Leu Arg Lys Ile Ser Lys Asp Ala Gly Met Pro Ile Gln Gly
           50           55           60
Gln Pro Cys Phe Cys Lys Tyr Ala Gln Gly Ala Asp Ser Val Glu Pro
65           70           75           80
Met Phe Arg His Leu Lys Asn Thr Tyr Ser Gly Leu Gln Leu Ile Ile
           85           90           95
Val Ile Leu Pro Gly Lys Thr Pro Val Tyr Ala Glu Val Lys Arg Val
           100          105          110
Gly Asp Thr Leu Leu Gly Met Ala Thr Gln Cys Val Gln Val Lys Asn
           115          120          125
Val Ile Lys Thr Ser Pro Gln Thr Leu Ser Asn Leu Cys Leu Lys Ile
           130          135          140
Asn Val Lys Leu Gly Gly Ile Asn Asn Ile Leu Val Pro His Gln Arg
145          150          155          160
Pro Ser Val Phe Gln Gln Pro Val Ile Phe Leu Gly Ala Asp Val Thr
           165          170          175
His Pro Pro Ala Gly Asp Gly Lys Lys Pro Ser Ile Ala Ala Val Val
           180          185          190

```

<210> 551

<211> 291

<212> DNA

<213> Homo sapiens

<400> 551

```

nnggatccgg attatggggc tattgctaac aggtcaacgg ccatcaaggt gctcgttgcc
60
gtggcaccgc cagccccgga gcctactcgc gagccaccga cgaactccgc tccttccgag
120
gaaccgtcct cgtcgtcaat cgcaccgggc ccgccggccc cgacgactgc agtaccacg
180
actagttcgt cgtcggggccg ctgaccgatg cgcccatcgg cggggtcatc tggctggcgc
240
tagcgggggc ttcgatgtcc ccataccaca gcgtccgcta aattgccnc c
291

```

<210> 552

<211> 67

<212> PRT

<213> Homo sapiens

<400> 552

```

Xaa Asp Pro Asp Tyr Gly Ala Ile Ala Asn Arg Ser Thr Ala Ile Lys
 1           5           10           15
Val Leu Val Ala Val Ala Pro Pro Ala Pro Glu Pro Thr Arg Glu Pro

```

20                      25                      30  
 Pro Thr Asn Ser Ala Pro Ser Glu Glu Pro Ser Ser Ser Ile Ala  
                     35                      40                      45  
 Pro Val Pro Pro Ala Pro Thr Thr Ala Val Pro Thr Thr Ser Ser Ser  
                     50                      55                      60  
 Ser Gly Arg  
 65

<210> 553  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 553  
 ctagccgatg taggattagt aggttttccg agcgtgggta aatctacctt actctcaata  
 60  
 gtatctaaag ccaaaccgaa aattggtgca tatcatttca ctacaattaa acctaactta  
 120  
 ggtggtgttt ccacaaaaga tcaacgtagt tttgttatgg cagatttacc aggtttaatt  
 180  
 gaaggtgcat ctgatggcgt tggattagga catcaatttt taagacatgt agagagaaca  
 240  
 aaagttattg ttcacatgat tgatatgagc ggttctgaag gtagagaacc tattgaagat  
 300  
 tataaagtca ttaatcaaga attagctgcg tacgagcaac gtttagaaga tagacctcaa  
 360  
 atcgtagtag ctaacaagat ggatttacct gaatcacaag ataatttaaa cttgtttaaa  
 420  
 gaagaaattg gcgaagatgt gccagttatt ccagtttcaa caataacgcg t  
 471

<210> 554  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 554  
 Leu Ala Asp Val Gly Leu Val Gly Phe Pro Ser Val Gly Lys Ser Thr  
 1                      5                      10                      15  
 Leu Leu Ser Ile Val Ser Lys Ala Lys Pro Lys Ile Gly Ala Tyr His  
                     20                      25                      30  
 Phe Thr Thr Ile Lys Pro Asn Leu Gly Val Val Ser Thr Lys Asp Gln  
                     35                      40                      45  
 Arg Ser Phe Val Met Ala Asp Leu Pro Gly Leu Ile Glu Gly Ala Ser  
                     50                      55                      60  
 Asp Gly Val Gly Leu Gly His Gln Phe Leu Arg His Val Glu Arg Thr  
 65                      70                      75                      80  
 Lys Val Ile Val His Met Ile Asp Met Ser Gly Ser Glu Gly Arg Glu  
                     85                      90                      95  
 Pro Ile Glu Asp Tyr Lys Val Ile Asn Gln Glu Leu Ala Ala Tyr Glu  
                     100                      105                      110  
 Gln Arg Leu Glu Asp Arg Pro Gln Ile Val Val Ala Asn Lys Met Asp  
                     115                      120                      125  
 Leu Pro Glu Ser Gln Asp Asn Leu Asn Leu Phe Lys Glu Glu Ile Gly



130 135 140  
 Glu Asp Val Pro Val Ile Pro Val Ser Thr Ile Thr Arg  
 145 150 155

<210> 555  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 555  
 tctagagatt gagaacaatt atggatacag aaatggttga ttccgtcaaa tatattcgag  
 60  
 attcgggaatc atgtgaggct cgcgtgctgg agatcttagc cagaaggccg tccatgatgg  
 120  
 tgcagatctt gcgtggcgac ggcttaatta acgaagacca gagattagtc agattatggc  
 180  
 ttaataaagt acctagaatt gttcgctgc ttctccggct tagtgtgttc gtcgctgcgg  
 240  
 caataggtgc ccgtgcggta tgggcggcgg cttccggtaa tcccgatctt gttcacgcgt  
 300

<210> 556  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 556  
 Met Asp Thr Glu Met Val Asp Ser Val Lys Tyr Ile Arg Asp Ser Glu  
 1 5 10 15  
 Ser Cys Glu Ala Arg Val Leu Glu Ile Leu Ala Arg Arg Pro Ser Met  
 20 25 30  
 Met Val Gln Ile Leu Arg Gly Asp Gly Leu Ile Asn Glu Asp Gln Arg  
 35 40 45  
 Leu Val Arg Leu Trp Leu Asn Lys Val Pro Arg Ile Val Arg Leu Leu  
 50 55 60  
 Leu Arg Leu Ser Val Phe Val Ala Ala Ala Ile Gly Ala Arg Ala Val  
 65 70 75 80  
 Trp Ala Ala Ala Ser Gly Asn Pro Asp Leu Val His Ala  
 85 90

<210> 557  
 <211> 678  
 <212> DNA  
 <213> Homo sapiens

<400> 557  
 atcttccccg tttatgagga gaatgcgctg cgtgtcgagt ttttcggcga cgaaattgag  
 60  
 gccctcacga cgatgcaccc gctcaccggg gaggtcatca gcgaggacga gcaggtctac  
 120  
 gtgttccccg ctaccacta tgtcgccggc ccggaacgta tggagcgggc catagcgtcc  
 180  
 atccagcagg agctcgagga gcgcctggcc gttctagagc gtgatgggaa actgttggag  
 240

gcccaacggt tacgtatgcg tactacctac gatatcgaga tgatgcagca ggtcgggtgcc  
 300  
 tgtgtctggca tcgaaaacta ttcgcggcac atcgacggac gcgctccccg ctcagccccc  
 360  
 aactgtctgc ttgactactt tccggaagat tttgtgctcg tcattgatga atcccacgtg  
 420  
 accgtccccg agattggcgg gatgtatgag ggggacatga gccgcaagcg gacattggta  
 480  
 gaacatgggt tccgactgcc cagcgcgatg gacaaccgtc ctctcaaatt cgacgagttc  
 540  
 acccagcgga tcggccagac tgtctacctg tccgccacgc ccggttcgta cgagaccgaa  
 600  
 cgagctcacg gcgtcgtcga acaaatcatt cgtccgacag gtctgggtgga tccggagatt  
 660  
 atcgtcaagc ctacgcgt  
 678

&lt;210&gt; 558

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 558

Ile Phe Pro Val Tyr Glu Glu Asn Ala Leu Arg Val Glu Phe Phe Gly  
 1 5 10 15  
 Asp Glu Ile Glu Ala Leu Thr Thr Met His Pro Leu Thr Gly Glu Val  
 20 25 30  
 Ile Ser Glu Asp Glu Gln Val Tyr Val Phe Pro Ala Thr His Tyr Val  
 35 40 45  
 Ala Gly Pro Glu Arg Met Glu Arg Ala Ile Ala Ser Ile Gln Gln Glu  
 50 55 60  
 Leu Glu Glu Arg Leu Ala Val Leu Glu Arg Asp Gly Lys Leu Leu Glu  
 65 70 75 80  
 Ala Gln Arg Leu Arg Met Arg Thr Thr Tyr Asp Ile Glu Met Met Gln  
 85 90 95  
 Gln Val Gly Ala Cys Ala Gly Ile Glu Asn Tyr Ser Arg His Ile Asp  
 100 105 110  
 Gly Arg Ala Pro Gly Ser Ala Pro Asn Cys Leu Leu Asp Tyr Phe Pro  
 115 120 125  
 Glu Asp Phe Val Leu Val Ile Asp Glu Ser His Val Thr Val Pro Gln  
 130 135 140  
 Ile Gly Gly Met Tyr Glu Gly Asp Met Ser Arg Lys Arg Thr Leu Val  
 145 150 155 160  
 Glu His Gly Phe Arg Leu Pro Ser Ala Met Asp Asn Arg Pro Leu Lys  
 165 170 175  
 Phe Asp Glu Phe Thr Gln Arg Ile Gly Gln Thr Val Tyr Leu Ser Ala  
 180 185 190  
 Thr Pro Gly Ser Tyr Glu Thr Glu Arg Ala His Gly Val Val Glu Gln  
 195 200 205  
 Ile Ile Arg Pro Thr Gly Leu Val Asp Pro Glu Ile Ile Val Lys Pro  
 210 215 220  
 Thr Arg  
 225

<210> 559  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 559  
 ggatcctatg gagctcaagt tcaagaaaag aaactgtaaa catggagggt ttgtgataaa  
 60  
 tggaatgcag tcagagggaa ggaactgccn gcttaaagtg tcctatgctg cgctttccag  
 120  
 agcaatacag tacacagtgg agggcgctac catggagtct ctgggtgaaa gttaggatgg  
 180  
 tatggtggca ccagccaaac ttctcagggt tcataggcag acagcagctc tggagtggaa  
 240  
 ctaaagtgtg tccaggagct gaagccctta atcagctagg gtcacacag agtcaaggta  
 300  
 ggggtcaaaaa cattcagtct gggaccatat ctaga  
 335

<210> 560  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 560  
 Met Glu Cys Ser Gln Arg Glu Gly Thr Ala Xaa Leu Lys Cys Pro Met  
 1 5 10 15  
 Leu Arg Phe Pro Glu Gln Tyr Ser Thr Gln Trp Arg Ala Leu Pro Trp  
 20 25 30  
 Ser Leu Trp Val Lys Val Arg Met Val Trp Trp His Gln Pro Asn Phe  
 35 40 45  
 Ser Gly Phe Ile Gly Arg Gln Gln Leu Trp Ser Gly Thr Lys Val Tyr  
 50 55 60  
 Pro Gly Ala Glu Ala Leu Asn Gln Leu Gly Leu Thr Gln Ser Gln Gly  
 65 70 75 80  
 Arg Val Lys Asn Ile Gln Ser Gly Thr Ile Ser Arg  
 85 90

<210> 561  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<400> 561  
 ngcgcgcccc ctctccgat ggcggcggag atccagccca agcctctgac ccgcaagccg  
 60  
 atcctgctgc agcggatgga ggggtcccag gaggtggtga atatggccgt gatcgtgccc  
 120  
 aaagaggagg gcgtcatcag cgtctccgag gacaggacag ttcgtgtttg gttaaagaga  
 180  
 gacagtggac agtattggcc aagcgtatac catgcaatgc cttgagtta tattgtcaga  
 240  
 agattataac aagatgactc ctgtgaaaaa ctatcaagcg catcagagca gagtgacgat  
 300

gacacctgtt gtcctggagc tggagtgggt gctgagcaca ggacaggaca agcaatttgc  
 360  
 ctggcactgc tctgagagtg ggcagcgctt gggagggttat cggaccagtg ctgtggcctc  
 420  
 aggcctgcaa tttgatgttg aaaccggca tgtgtttatc ggtgaccact caggcca  
 477

<210> 562  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 562  
 Xaa Ala Pro Pro Pro Pro Met Ala Ala Glu Ile Gln Pro Lys Pro Leu  
 1 5 10 15  
 Thr Arg Lys Pro Ile Leu Leu Gln Arg Met Glu Gly Ser Gln Glu Val  
 20 25 30  
 Val Asn Met Ala Val Ile Val Pro Lys Glu Glu Gly Val Ile Ser Val  
 35 40 45  
 Ser Glu Asp Arg Thr Val Arg Val Trp Leu Lys Arg Asp Ser Gly Gln  
 50 55 60  
 Tyr Trp Pro Ser Val Tyr His Ala Met Pro  
 65 70

<210> 563  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 563  
 ccatggcaga cagggagctg agcggcctgc ggaccaggt gcaccagagc atggtgcccc  
 60  
 tgctcctaca cctgaaggac caatgccaa ctgtcgccac gggcaatgcc caccacaaga  
 120  
 aaaggaaggg aaaaggcctc aaccttggtc agggctggaa cccacaggag gccagggtac  
 180  
 ggggcagacg gatggcagca gcactgcctg agagtgggg gagctccac ggggcagcaa  
 240  
 gtggcgggca gaggtcttg ccactgcac tggtttctgt gaccacagtt ggctgccccg  
 300  
 ctccccact gcaccactga cgaagcgaga ccctgcctca aaaaaaaaaa caaaaacaaa  
 360  
 aacaaaaaca aaactcaaac ttcacactgg agatctgtgc aat  
 403

<210> 564  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 564  
 Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val His Gln Ser  
 1 5 10 15  
 Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro Thr Val Ala

```

      20      25      30
Thr Gly Asn Ala His Pro Lys Lys Arg Lys Gly Lys Gly Leu Asn Leu
      35      40      45
Gly Gln Gly Trp Asn Pro Gln Glu Ala Arg Val Arg Gly Arg Arg Met
      50      55      60
Ala Ala Ala Leu Pro Glu Ser Trp Gly Ser Ser His Gly Ala Ala Ser
65      70      75      80
Gly Gly Gln Arg Val Trp Pro Ser Ala Leu Val Ser Val Thr Thr Val
      85      90      95
Gly Leu Pro Ala Pro Pro Leu His His
      100      105

```

<210> 565  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

```

<400> 565
ncctctccat ggagcagccc catcttcact cttcacctgg ggccaggcct tccacagcag
60
ccaccaccca ggcaccacag agaggctgcg cggaggacac aggagagagg gagccccagg
120
gcacgatctc caccggttt cccagctccc tgggtcagcc ccacgggacc tctcctctc
180
tctcccatat ctccaagcca gccttgcata tagtaagagc tgtgatcagg atggaaagag
240
gcttggggccg cacagacctg gacaatgtcc cagtgagggc tggaggtgct agaagggcac
300
aggaggcccc n
311

```

<210> 566  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

```

<400> 566
Met Glu Gln Pro His Leu His Ser Ser Pro Gly Ala Arg Pro Ser Thr
1      5      10      15
Ala Ala Thr Thr Gln Arg Pro Gln Arg Gly Cys Ala Glu Asp Thr Gly
20      25      30
Glu Arg Glu Pro Thr Gly Thr Ile Ser Thr Gly Phe Pro Ser Ser Leu
35      40      45
Gly Gln Pro His Gly Thr Ser Pro Pro Leu Ser His Ile Ser Lys Pro
50      55      60
Ala Leu His Ile Val Arg Ala Val Ile Arg Met Glu Arg Gly Leu Gly
65      70      75      80
Arg Thr Asp Leu Asp Asn Val Pro Val Arg Ala Gly Gly Ala Arg Arg
85      90      95
Ala Gln Glu Ala Pro
100

```

<210> 567  
 <211> 929

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

atcacatcgg tcgctgaacc ccgacgagcc tcaccttgtc gaaatattca tccttgagat  
 60  
 cagcccacgt gccgtcgacc tctacctcgg tgagggctgc gggcgggtac caacagccga  
 120  
 cctcgctcctc ggctccactc atggcggcaa gtcccgctgc cagtcggggg atcgtcgggg  
 180  
 catgggcat gatgagcagg ttatccacat cgtcgtcgat ttctccgatg cgccgacga  
 240  
 cggatatcagt gccgcagtaa tagagggtc gcatgaattc gaccggacaa tccagttgga  
 300  
 ggcagtccca ggtctggcgg gtgcgtaggg catcggagac cagagcatgt ccaacattgc  
 360  
 gcagtcctaa acgcgtgccg acctcacggg cctgacggcg cccacgctcg gtgagcggac  
 420  
 gtcctcgatc cccgcccga gcatgggatg cgggctgtgc atgtctcatg aggaacagag  
 480  
 tgtgcatgga tccatcggtg cacttcgcgg tcgcccggt tctacgatgt tggcatgccg  
 540  
 ttgacggatt tgggcattga tgaggcgcgt acctaccgcc cgaacgtccc tgaacccgat  
 600  
 ggtttcgact ctttttgggc cgagaccctc gatgagtatt ccggcggtcc ccaagatctg  
 660  
 acggcgggtgc ctttcgataa ccgtcaggct ctgatagata cctgggattt gtcgtgggtg  
 720  
 gggatatcaca actctcgggt gagcgggtga ttacatgccc cagccgctgt gaacggccca  
 780  
 ttcccccttg tcatcgagta cctcgggtac tcgagttcgc gtggtgtgcc gattggatca  
 840  
 gtcttcgctg ctgctggcta tgcacatc gtcgtcgatc cagtggtca ggggtggggc  
 900  
 caccacacct tgacggaaaa ctgtccgga  
 929

&lt;210&gt; 568

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 568

Met Pro Leu Thr Asp Leu Gly Ile Asp Glu Ala Arg Thr Tyr Arg Pro  
 1 5 10 15  
 Asn Val Pro Glu Pro Asp Gly Phe Asp Ser Phe Trp Ala Glu Thr Leu  
 20 25 30  
 Asp Glu Tyr Ser Gly Val Pro Gln Asp Leu Thr Ala Val Pro Phe Asp  
 35 40 45  
 Asn Arg Gln Ala Leu Ile Asp Thr Trp Asp Leu Ser Trp Val Gly Tyr  
 50 55 60  
 His Asn Ser Arg Val Ser Gly  
 65 70

<210> 569  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<400> 569  
 ncgcaaactt caacggtgcc atctgccata ttccagggat gccagatttg gatggaaaat  
 60  
 accatatcac tctcgattca gaattcgtac ttgatttagt ggcctttaac aaaacgctac  
 120  
 ctgtcgatta cttaatgggc gaaggaacgg aacttggtga ttcaaactg gaagaactac  
 180  
 ctgaatgccc atattatcca aaagatcaaa agccaatcgt gattgggaaa aacacaaaac  
 240  
 tcaaggaaca accaacagcc gttgctctct tctcgatgt tgataaacgg ccagagatta  
 300  
 aatcaaaaat cttagaccgc tatgataatg atattgaaat ccgtacttgg ggcggtactt  
 360  
 cccatgtcta n  
 371

<210> 570  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 570  
 Met Pro Asp Leu Asp Gly Lys Tyr His Ile Thr Leu Asp Ser Glu Phe  
 1 5 10 15  
 Val Leu Asp Leu Val Ala Phe Asn Lys Thr Leu Pro Val Asp Tyr Leu  
 20 25 30  
 Met Val Glu Gly Thr Glu Leu Val Tyr Ser Asn Met Glu Glu Leu Pro  
 35 40 45  
 Glu Cys Pro Tyr Tyr Pro Lys Asp Gln Lys Pro Ile Val Ile Gly Lys  
 50 55 60  
 Asn Thr Lys Leu Lys Glu Gln Pro Thr Ala Val Ala Leu Phe Ser Asp  
 65 70 75 80  
 Val Asp Lys Arg Pro Glu Ile Lys Ser Lys Ile Leu Asp Arg Tyr Asp  
 85 90 95  
 Asn Asp Ile Glu Ile Arg Thr Trp Gly Gly Thr Ser His Val Xaa  
 100 105 110

<210> 571  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 571  
 nacgcgtatc ttcgctggtc cacaccagac gtggcattaa acgacgtcac aagaacgaca  
 60  
 ccgggccttg acgggcccac gcacgaagag gccaaagacac tgaccgagac tactgtttcc  
 120  
 gttccacact ccttcgccga cctcggcgtc cgagaagata tctgccaggc gctggaaggg  
 180

gtgggaattg tctccccgtt cccgatccag gccatgtcga tcccgaattgc cgtcgagggc  
 240  
 acggatctta ttgggcaggc gcgtactggc actggcaaaa cactcgcctt cggcatcacc  
 300  
 atcttgagc gcataccct gcccggtagc gaaggttggg aagaactcac caccaaaggc  
 360  
 aagcccccaa gcactcgtga tgtgcccta cccgggagct aggtcgg  
 407

<210> 572  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 572  
 Leu Thr Glu Thr Thr Val Ser Val Pro Thr Ser Phe Ala Asp Leu Gly  
 1 5 10 15  
 Val Arg Glu Asp Ile Cys Gln Ala Leu Glu Gly Val Gly Ile Val Ser  
 20 25 30  
 Pro Phe Pro Ile Gln Ala Met Ser Ile Pro Ile Ala Val Glu Gly Thr  
 35 40 45  
 Asp Leu Ile Gly Gln Ala Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe  
 50 55 60  
 Gly Ile Thr Ile Leu Gln Arg Ile Thr Leu Pro Gly Asp Glu Gly Trp  
 65 70 75 80  
 Glu Glu Leu Thr Thr Lys Gly Lys Pro Pro Ser Thr Arg Asp Val Pro  
 85 90 95  
 Leu Pro Gly Ser  
 100

<210> 573  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 573  
 acgcgtctac cgtaggatcc atgaccttcc gcaagaccga ccaccacaag aacgccattg  
 60  
 actacgaggt cgccggacta atgtggctcg ctgctgcccg gccagatggg gccggcatcg  
 120  
 tcgaggtgct cgaccacggc aagggatggc tcaccgaacc cgaattgtcc actgggcacc  
 180  
 ccacccgcga ggcagccgag gactttggcc gccgactggc tcacacccac gcagccgggg  
 240  
 cctcacacct gggggctgca cctgacgggt ttgttcccga cgatgggtat atcggccgtg  
 300  
 ctcccctgcc actgccgtcc gaaccaatct cctcctgggg agagttttac gctcagtgcc  
 360  
 gcacgaacc atatatggac agtctcgacg ctg  
 393

<210> 574  
 <211> 124  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 574

```

Met Thr Phe Arg Lys Thr Asp His His Lys Asn Ala Ile Asp Tyr Glu
 1           5           10           15
Val Ala Gly Leu Met Trp Leu Ala Ala Arg Pro Asp Gly Ala Gly
      20           25           30
Ile Val Glu Val Leu Asp His Gly Lys Gly Trp Leu Thr Glu Pro Glu
      35           40           45
Leu Ser Thr Gly His Pro Thr Arg Glu Ala Ala Glu Asp Phe Gly Arg
      50           55           60
Arg Leu Ala His Thr His Ala Ala Gly Ala Ser His Leu Gly Ala Ala
      65           70           75           80
Pro Asp Gly Phe Val Pro Asp Asp Gly Tyr Ile Gly Arg Ala Pro Leu
      85           90           95
Pro Leu Pro Ser Glu Pro Ile Ser Ser Trp Gly Glu Phe Tyr Ala Gln
      100          105          110
Cys Arg Ile Glu Pro Tyr Met Asp Ser Leu Asp Ala
      115          120

```

&lt;210&gt; 575

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

```

nntatccatg cagacatggg accaggggtct ctgagggcag gaagcaaagt gggtgagggg
60
gatgggacaa gatgccctgg tgctaaggcc tctggagctg gagctgggta tagggatgat
120
accaggcacc ctgagtcact cgcacctcac aatggggccg cttctgggag ccagtgggct
180
tatggggctg gcaatgtgct gggttatgag gatggatcag aacttcagg gcctcagggg
240
actgggggtca gaacagccta tggagaaagg tcaaggggcc ttgggcctag gagtacaggg
300
ccaggggggtg aggcaggctt tagagatggt tcaggaggcc tccaaggaat gggatcagca
360
gatgggcccgt
372

```

&lt;210&gt; 576

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 576

```

Xaa Ile His Ala Asp Met Gly Pro Gly Ser Leu Arg Ala Gly Ser Lys
 1           5           10           15
Val Gly Glu Gly Asp Gly Thr Arg Cys Pro Gly Ala Lys Ala Ser Gly
      20           25           30
Ala Gly Ala Gly Tyr Arg Asp Asp Thr Arg His Pro Glu Ser Leu Ala
      35           40           45
Pro His Asn Gly Ala Ala Ser Gly Ser Gln Trp Ala Tyr Gly Ala Gly

```

```

      50              55              60
Asn Val Leu Gly Tyr Glu Asp Gly Ser Glu Leu Pro Gly Pro Gln Gly
65              70              75              80
Thr Gly Val Arg Thr Ala Tyr Gly Glu Arg Ser Arg Gly Leu Gly Pro
      85              90              95
Arg Ser Thr Gly Pro Gly Gly Glu Ala Gly Phe Arg Asp Gly Ser Gly
      100              105              110
Gly Leu Gln Gly Met Gly Ser Ala Asp Gly Pro Gly
      115              120

```

&lt;210&gt; 577

&lt;211&gt; 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 577

```

nagcgcaatg tcgatggtc ggatttgtca atgtcggatt tctcatccca gccatcaccc
60
ccgcagcgcc gggcgcggtat gaccagcggc cagcgccgtg aacagctcat cagcgtggcc
120
cgtcgcctct tcgcagacaa tggcatggca gggacctccg tcgaggagat cgccgctacc
180
gcgggagtct ccaaaccctgt catctacgag catttcgggt ccaaggatgg gctgtacgcc
240
gtcgtcgtag accgcgaggt acgccaccta caagattccc tcaacgccgc catgaccgcg
300
ccaaagcaag gcccgaaacg caccctggag tcagcggtag tggccctgct ggactacatc
360
gacgaccgtc cagacgggtt tcggatcatc tcgcgagact cctcggtcgg ttcagccacc
420
ggttcgtacg cg
432

```

&lt;210&gt; 578

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

```

Met Thr Ser Gly Gln Arg Arg Glu Gln Leu Ile Ser Val Ala Arg Arg
1              5              10              15
Leu Phe Ala Asp Asn Gly Met Ala Gly Thr Ser Val Glu Glu Ile Ala
      20              25              30
Ala Thr Ala Gly Val Ser Lys Pro Val Ile Tyr Glu His Phe Gly Ser
      35              40              45
Lys Asp Gly Leu Tyr Ala Val Val Val Asp Arg Glu Val Arg His Leu
      50              55              60
Gln Asp Ser Leu Asn Ala Ala Met Thr Arg Pro Lys Gln Gly Pro Lys
65              70              75              80
Arg Thr Leu Glu Ser Ala Val Leu Ala Leu Leu Asp Tyr Ile Asp Asp
      85              90              95
Arg Pro Asp Gly Phe Arg Ile Ile Ser Arg Asp Ser Ser Val Gly Ser
      100              105              110
Ala Thr Gly Ser Tyr Ala

```

115

<210> 579  
 <211> 320  
 <212> DNA  
 <213> Homo sapiens

<400> 579  
 ggccccaaac actccgacct cagctggtcc agcatgctgg gcaccgtgct gctgctggcc  
 60  
 ctgctcccag ggatcaccac cttaccacag gggccacctg ctcccccggt ccccgcggcg  
 120  
 cccggccccct ggctgcgcag acccctcttc agcctgaagc tgtccgacac agaggacgtc  
 180  
 ttctctcgcc gcgcggggcc gctcgaggtc cgggccgaca gccgcgtggt cgtgcaggcg  
 240  
 gccttgcccc gtccctcccc gcgctggggc ctggccctgc accgctgctc agtgacgccg  
 300  
 tcctcacgcc cggccccggg  
 320

<210> 580  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 580  
 Met Leu Gly Thr Val Leu Leu Leu Ala Leu Leu Pro Gly Ile Thr Thr  
 1 5 10 15  
 Leu Pro Ser Gly Pro Pro Ala Pro Pro Phe Pro Ala Ala Pro Gly Pro  
 20 25 30  
 Trp Leu Arg Arg Pro Leu Phe Ser Leu Lys Leu Ser Asp Thr Glu Asp  
 35 40 45  
 Val Phe Pro Arg Arg Ala Gly Pro Leu Glu Val Pro Ala Asp Ser Arg  
 50 55 60  
 Val Phe Val Gln Ala Ala Leu Ala Arg Pro Ser Pro Arg Trp Gly Leu  
 65 70 75 80  
 Ala Leu His Arg Cys Ser Val Thr Pro Ser Ser Arg Pro Ala Pro  
 85 90 95

<210> 581  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 581  
 nacgacggca accattcgct gtggaaggag ctgaacggcc agctcgacgt gcagtttttc  
 60  
 cacgtcggca tgggcttcaa gacgccagta cgcctgcaca gcgtcgaccc caagacccgc  
 120  
 gaagcccgcg aggtgcattt ccgcccgtcg ctgttcaact atgccaagac cacggtggac  
 180  
 accaagcagc tgaccggcga cctgggtttc tccggtttca agctgttcaa ggcgccggaa  
 240

ctggatcgcc atgacgtgct gtcgtttctc ggcgccagtt acttccgtgc ggtggacgca  
300  
accgcgcagt acggcctctc cgcacgcggc ctggcgattg atacctacgc gaaaaaacgc  
360  
gaggaattcc ccgacttcac gcagttctgg ttcgaaaccc cgagcaagga cccacgcgt  
419

<210> 582  
<211> 139  
<212> PRT  
<213> Homo sapiens

<400> 582  
Xaa Asp Gly Asn His Ser Leu Trp Lys Glu Leu Asn Gly Gln Leu Asp  
1 5 10 15  
Val Gln Phe Phe His Val Gly Met Gly Phe Lys Thr Pro Val Arg Met  
20 25 30  
His Ser Val Asp Pro Lys Thr Arg Glu Ala Arg Glu Val His Phe Arg  
35 40 45  
Pro Ser Leu Phe Asn Tyr Ala Lys Thr Thr Val Asp Thr Lys Gln Leu  
50 55 60  
Thr Gly Asp Leu Gly Phe Ser Gly Phe Lys Leu Phe Lys Ala Pro Glu  
65 70 75 80  
Leu Asp Arg His Asp Val Leu Ser Phe Leu Gly Ala Ser Tyr Phe Arg  
85 90 95  
Ala Val Asp Ala Thr Arg Gln Tyr Gly Leu Ser Ala Arg Gly Leu Ala  
100 105 110  
Ile Asp Thr Tyr Ala Lys Lys Arg Glu Glu Phe Pro Asp Phe Thr Gln  
115 120 125  
Phe Trp Phe Glu Thr Pro Ser Lys Asp Pro Arg  
130 135

<210> 583  
<211> 407  
<212> DNA  
<213> Homo sapiens

<400> 583  
cttttgatca atgctgatgg cacgaagcta tcgaaaaggt cgggtgatgt ccgcgtagct  
60  
gattatatgg agcaggggatg ggagccggag acgctggtga acctagttgc cctcacgggc  
120  
tatagctatg cgaatttgga gcatgctgat catgatgtca agacgatgaa cgaactcatc  
180  
cgtgactttg agcttactcg tatctcccat acgcgagcca cactcccat ggacaagctt  
240  
gtgtttttga acaagcatca cttgacaaat aagctggcgc tcgccacgac gtgtgagcag  
300  
accaaacaag acctattgtc gcgtatccgg ccgatcacta cctcgtggta cggcgattat  
360  
tcagatgatt atatcctgcg cgtcgtaaca ctgggacccc aacgcgt  
407

<210> 584

<211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 584  
 Leu Leu Ile Asn Ala Asp Gly Thr Lys Leu Ser Lys Arg Ser Gly Asp  
                   5                  10                  15  
 Val Arg Val Ala Asp Tyr Met Glu Gln Gly Trp Glu Pro Glu Thr Leu  
                   20                  25                  30  
 Val Asn Leu Val Ala Leu Thr Gly Tyr Ser Tyr Ala Asn Leu Glu His  
                   35                  40                  45  
 Ala Asp His Asp Val Lys Thr Met Asn Glu Leu Ile Arg Asp Phe Glu  
                   50                  55                  60  
 Leu Thr Arg Ile Ser His Thr Arg Ala Thr Leu Pro Met Asp Lys Leu  
                   65                  70                  75                  80  
 Val Phe Leu Asn Lys His His Leu Thr Asn Lys Leu Ala Leu Ala Thr  
                   85                  90                  95  
 Thr Cys Glu Gln Thr Lys Gln Asp Leu Leu Ser Arg Ile Arg Pro Ile  
                   100                  105                  110  
 Thr Thr Ser Trp Tyr Gly Asp Tyr Ser Asp Asp Tyr Ile Leu Arg Val  
                   115                  120                  125  
 Val Thr Leu Gly Pro Gln Arg  
                   130                  135

<210> 585  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

<400> 585  
 nnacgcgtcc tcgctggata tgaggctgtg aagaggggaac gctgcgtcat tgatctggac  
 60  
 gatattttgt tgtgcgcggt gggattgttg gttcagcacc gtgacatcac tgaggagatt  
 120  
 cgggctcggg accgacattt cgttgctcgac gaataccagg acgtttctcc gctgcagcat  
 180  
 aggttgcttg aactgtgggt tggcgatcga aatgatgtat gcgtcgtggg agatccgcac  
 240  
 caggccattc actcttatgc aggcgcacga gctgactacc tcctcgactt cgttgccgat  
 300  
 catcctggcg ctaaacgcac cgatttggtt cgcaactacc gctccactcc cgagatcgtt  
 360  
 cagttggcca atgaagttct tgtcaaccgt atgactccag aggaggcttt ggaacatggc  
 420  
 aggggagtca cattggtttc gcggggtcga tccgggtccc agcccatcta tcaggctctc  
 480  
 ggggacgatg cctccgaagc tt  
 502

<210> 586  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 586

Xaa Arg Val Leu Ala Gly Tyr Glu Ala Val Lys Arg Glu Arg Cys Val  
 1 5 10 15  
 Ile Asp Leu Asp Asp Ile Leu Leu Cys Ala Val Gly Leu Leu Val Gln  
 20 25 30  
 His Arg Asp Ile Thr Glu Glu Ile Arg Ala Arg Tyr Arg His Phe Val  
 35 40 45  
 Val Asp Glu Tyr Gln Asp Val Ser Pro Leu Gln His Arg Leu Leu Glu  
 50 55 60  
 Leu Trp Phe Gly Asp Arg Asn Asp Val Cys Val Val Gly Asp Pro His  
 65 70 75 80  
 Gln Ala Ile His Ser Tyr Ala Gly Ala Arg Ala Asp Tyr Leu Leu Asp  
 85 90 95  
 Phe Val Ala Asp His Pro Gly Ala Lys Arg Ile Asp Leu Val Arg Asn  
 100 105 110  
 Tyr Arg Ser Thr Pro Glu Ile Val Gln Leu Ala Asn Glu Val Leu Val  
 115 120 125  
 Asn Arg Met Thr Pro Glu Glu Ala Leu Glu His Gly Arg Gly Val Thr  
 130 135 140  
 Leu Val Ser Arg Gly Arg Ser Gly Pro Glu Pro Ile Tyr Gln Ala Leu  
 145 150 155 160  
 Gly Asp Asp Ala Ser Glu Ala  
 165

&lt;210&gt; 587

&lt;211&gt; 746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 587

gcgtcctgcc tcgagggcct cgggagcttc cgctgcctct gttggccagg ctacagcggc  
 60  
 gagctgtgcg aggtggacga ggacgagtgt gcatcgagcc cctgccagca tgggggcca  
 120  
 tgctgcagc gctctgaccc ggccctctac ggggggtgtcc aggccgcctt ccctggcgcc  
 180  
 ttcagcttcc gccatgctgc gggtttctg tgccactgcc ctctggctt tgagggagcc  
 240  
 gactgcggtg tggaggtgga cgagtgtgcc tcacggccat gcctcaatgg aggccactgc  
 300  
 caggacctgc ccaatggctt ccagtgtcac tgcccagatg gctacgcagg gccgacatgt  
 360  
 gaggaagatg tggatgaatg cctgtccgat ccctgcctgc acggcggaac ctgcagtgc  
 420  
 actgtggcag gctatatctg caggtgccca gagacctggg gtgggcgcga ctgttctgtg  
 480  
 cagctcactg gctgccaggg ccacacctgc ccgctggctg ccacctgcat ccctatcttc  
 540  
 gactctgggg tccacagtta cgtctgccac tgcccacctg gtacccatgg accgttctgt  
 600  
 ggccagaata ccaccttctc tgtgatggct gggagcccca ttcaggcatc agtgccagct  
 660  
 ggtggccccc tgggtctggc actgaggttt cgcaccacac tgcccgtgg gaccttgccc  
 720

actcgcaatg acaccaagga aagctt  
746

<210> 588  
<211> 248  
<212> PRT  
<213> Homo sapiens

<400> 588  
Ala Ser Cys Leu Glu Gly Leu Gly Ser Phe Arg Cys Leu Cys Trp Pro  
1 5 10 15  
Gly Tyr Ser Gly Glu Leu Cys Glu Val Asp Glu Asp Glu Cys Ala Ser  
20 25 30  
Ser Pro Cys Gln His Gly Gly Arg Cys Leu Gln Arg Ser Asp Pro Ala  
35 40 45  
Leu Tyr Gly Gly Val Gln Ala Ala Phe Pro Gly Ala Phe Ser Phe Arg  
50 55 60  
His Ala Ala Gly Phe Leu Cys His Cys Pro Pro Gly Phe Glu Gly Ala  
65 70 75 80  
Asp Cys Gly Val Glu Val Asp Glu Cys Ala Ser Arg Pro Cys Leu Asn  
85 90 95  
Gly Gly His Cys Gln Asp Leu Pro Asn Gly Phe Gln Cys His Cys Pro  
100 105 110  
Asp Gly Tyr Ala Gly Pro Thr Cys Glu Glu Asp Val Asp Glu Cys Leu  
115 120 125  
Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val Ala Gly  
130 135 140  
Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys Ser Val  
145 150 155 160  
Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala Thr Cys  
165 170 175  
Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His Cys Pro  
180 185 190  
Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe Ser Val  
195 200 205  
Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro Leu  
210 215 220  
Gly Leu Ala Leu Arg Phe Arg Thr Thr Leu Pro Ala Gly Thr Leu Ala  
225 230 235 240  
Thr Arg Asn Asp Thr Lys Glu Ser  
245

<210> 589  
<211> 381  
<212> DNA  
<213> Homo sapiens

<400> 589  
atctcacaag tacaattaca gtctcaagaa ctgagctatc agcaaaagca aggtcttcag  
60  
ccagtacctc tgcaagccac tatgagtgtc gcaactggta tccagccatc gcctgtaaat  
120  
gtgggtggtg taacttcagc tttaggtcag cagccttcca tttccagttt ggctcaaccc  
180

cagctaccat attctcaggc ggctcctcca gtgcaaactc cccttcagg ggcaccacca  
 240  
 cccaacagt tacagtatgg acaacagcaa ccaatgggtt ctacacagat ggccccaggc  
 300  
 catgtcaa at cagtgactca aaatcctgct tcagagtatg tacaacagca gccattctt  
 360  
 caaacagcaa tgcctccgg a  
 381

<210> 590

<211> 127

<212> PRT

<213> Homo sapiens

<400> 590

Ile	Ser	Gln	Val	Gln	Leu	Gln	Ser	Gln	Glu	Leu	Ser	Tyr	Gln	Gln	Lys
1				5					10					15	
Gln	Gly	Leu	Gln	Pro	Val	Pro	Leu	Gln	Ala	Thr	Met	Ser	Ala	Ala	Thr
			20					25					30		
Gly	Ile	Gln	Pro	Ser	Pro	Val	Asn	Val	Val	Gly	Val	Thr	Ser	Ala	Leu
		35					40					45			
Gly	Gln	Gln	Pro	Ser	Ile	Ser	Ser	Leu	Ala	Gln	Pro	Gln	Leu	Pro	Tyr
	50					55					60				
Ser	Gln	Ala	Ala	Pro	Pro	Val	Gln	Thr	Pro	Leu	Pro	Gly	Ala	Pro	Pro
65					70					75				80	
Pro	Gln	Gln	Leu	Gln	Tyr	Gly	Gln	Gln	Gln	Pro	Met	Val	Ser	Thr	Gln
			85					90						95	
Met	Ala	Pro	Gly	His	Val	Lys	Ser	Val	Thr	Gln	Asn	Pro	Ala	Ser	Glu
		100						105					110		
Tyr	Val	Gln	Gln	Gln	Pro	Ile	Leu	Gln	Thr	Ala	Met	Ser	Ser	Gly	
		115					120					125			

<210> 591

<211> 684

<212> DNA

<213> Homo sapiens

<400> 591

tcgaccatgg atcatctgcg ccacggcatc cacctgcgtg gttatgcgca gaagaacccg  
 60  
 aagcaggaat acaagcgga gtcgttcacc ctgttctccg agctgctgga ctcgatcaag  
 120  
 cgcgattcga ttcgggtcct cttccacgct caggggcccgg gggaaaaatc cgtatcgaaa  
 180  
 naaaaagcgc gcctgcgtca ggaagccgaa gccctggccc agcgcgatgca gttcgagcac  
 240  
 gctgaagccc caggcctgga cgcgccggaa atcctcggtg aagaagtcga tgcgcacctg  
 300  
 gccaccgccc cggtacgcaa cgagcagaag ctgggcccgt acgaactgtg ctactgcggt  
 360  
 tcgggcaaga agtacaagca ctgccacggt cagatcagct aaggtcttta ccggatactg  
 420  
 aaatacctgc gccgcgaccg gcattagccc tcgcggcggt tttccatttg aaacactgcc  
 480



cttgtgacgg cagtgcagat atcacattaa aaggagggca ttcattgggtg ttggttctgg  
 540  
 gtccttggcc tacgttgcac ccggttgccg gttttgaact cggtatcgcc tcggccggta  
 600  
 tcaagcgcgc tgggcgcaag gatgtggtgg cgatgcgctg cgccgaaggt tccacgggtg  
 660  
 cgggggtggt taccctcaac gcgt  
 684

<210> 592  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 592  
 Ser Thr Met Asp His Leu Arg His Gly Ile His Leu Arg Gly Tyr Ala  
 1 5 10 15  
 Gln Lys Asn Pro Lys Gln Glu Tyr Lys Arg Glu Ser Phe Thr Leu Phe  
 20 25 30  
 Ser Glu Leu Leu Asp Ser Ile Lys Arg Asp Ser Ile Arg Val Leu Phe  
 35 40 45  
 His Val Gln Gly Pro Gly Glu Lys Ser Val Ser Lys Xaa Lys Ala Arg  
 50 55 60  
 Leu Arg Gln Glu Ala Glu Ala Leu Ala Gln Arg Met Gln Phe Glu His  
 65 70 75 80  
 Ala Glu Ala Pro Gly Leu Asp Ala Pro Glu Ile Leu Gly Glu Glu Val  
 85 90 95  
 Asp Val Ala Leu Ala Thr Ala Pro Val Arg Asn Glu Gln Lys Leu Gly  
 100 105 110  
 Arg Asn Glu Leu Cys Tyr Cys Gly Ser Gly Lys Lys Tyr Lys His Cys  
 115 120 125  
 His Gly Gln Ile Ser  
 130

<210> 593  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

<400> 593  
 nnacgcgtgc agaccgcgcg gagtctcgct ccggtgcgga tagcgtagg ctcccaaacc  
 60  
 tgtgaaaccg tcacggtaga gcgtcgtggc gggctaccac ttagagcggc ccgattcacc  
 120  
 gataccatcc ccgcgcgcgt aggccagcca cgatggtcga cgccaccat ccagacccca  
 180  
 gtcataccta ctacacgtgg tcgattcgtg atcgccccg tcatgatgcg caccatcgac  
 240  
 ccgtttggca tggcccgcca tcacaccgat ctcggtcagg ttgccgaagt cattgtcacg  
 300  
 ccaaggatcg tcgatttggg cgctccggg gagctcgggg gtcagggatt cgacacaagg  
 360  
 tcctcagcga tccatgccgg acgacgtggt cccgacgatg ccatggtgcg cgattggcac  
 420

accggagact cgggtgcgacg cattcactgg cgctccacgg ctcaccgcgg ggacctcatg  
 480  
 gtccgatgcg aggagcaggc ctggaaccca tccgtcgta tegtgttgga ttctcgggct  
 540  
 cggcgtcacg ctggaactgg ccccgacgca tcctttgaat gggccgtcaa cgcggtggca  
 600  
 tccatctcga cgcgt  
 615

<210> 594  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 594  
 Xaa Arg Val Gln Thr Ala Arg Ser Leu Ala Pro Val Arg Ile Ala Leu  
 1 5 10 15  
 Gly Ser Gln Thr Cys Glu Thr Val Thr Val Glu Arg Arg Gly Gly Leu  
 20 25 30  
 Pro Leu Arg Ala Ala Arg Phe Thr Asp Thr Ile Pro Ala Pro Leu Gly  
 35 40 45  
 Gln Pro Arg Trp Ser Thr Ala Thr Ile Gln Thr Pro Val Ile Pro Thr  
 50 55 60  
 Thr Arg Gly Arg Phe Val Ile Gly Pro Val Met Met Arg Thr Ile Asp  
 65 70 75 80  
 Pro Phe Gly Met Ala Arg His His Thr Asp Leu Gly Gln Val Ala Glu  
 85 90 95  
 Val Ile Val Thr Pro Arg Ile Val Asp Leu Gly Ala Ser Gly Glu Leu  
 100 105 110  
 Gly Gly Gln Gly Phe Asp Thr Arg Ser Ser Ala Ile His Ala Gly Arg  
 115 120 125  
 Arg Gly Pro Asp Asp Ala Met Val Arg Asp Trp His Thr Gly Asp Ser  
 130 135 140  
 Val Arg Arg Ile His Trp Arg Ser Thr Ala His Arg Gly Asp Leu Met  
 145 150 155 160  
 Val Arg Cys Glu Glu Gln Ala Trp Asn Pro Ser Val Val Ile Val Leu  
 165 170 175  
 Asp Ser Arg Ala Arg Arg His Ala Gly Thr Gly Pro Asp Ala Ser Phe  
 180 185 190  
 Glu Trp Ala Val Asn Ala Val Ala Ser Ile Ser Thr Arg  
 195 200 205

<210> 595  
 <211> 303  
 <212> DNA  
 <213> Homo sapiens

<400> 595  
 acgcgtccta gccgcagtga atgttgctga accccggtga cctcacagtg gaggggcggc  
 60  
 cccatggggc catcggaccg cgccgcgcgg gggcgttcgc cagggcctcc gcagaagccc  
 120  
 gcctgtgccc gcaaccgccc cgaaattctc tccctggcac cgtgtccgct ttacggagcc  
 180

cggagcaagg ctcagaaaaa tgtcccagcc aaaaacatgg tacatgcctg tcatcaggca  
 240  
 agtcttcaaa gagcggctgg gaccaggggc cgagggacct cgtttagagg cggcttaggg  
 300  
 gga  
 303

<210> 596  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 596  
 Met Leu Leu Asn Pro Gly Asp Leu Thr Val Glu Gly Arg Pro His Gly  
 1 5 10 15  
 Ala Ile Gly Pro Arg Arg Ala Gly Ala Phe Ala Arg Ala Ser Ala Glu  
 20 25 30  
 Ala Arg Leu Cys Pro Gln Pro Pro Arg Asn Ser Leu Pro Gly Thr Val  
 35 40 45  
 Ser Ala Leu Arg Ser Pro Glu Gln Gly Ser Glu Lys Cys Pro Ser Gln  
 50 55 60  
 Lys His Gly Thr Cys Leu Ser Ser Gly Lys Ser Ser Lys Ser Gly Trp  
 65 70 75 80  
 Asp Gln Gly Pro Arg Asp Leu Val  
 85

<210> 597  
 <211> 2709  
 <212> DNA  
 <213> Homo sapiens

<400> 597  
 nacgcgtgca cgcagtgcgg caaagccttc cgctggaagt ccaactttaa tttgcacaag  
 60  
 aagaaccaca tgggtggagaa gacctacgaa tgtaaagaat gcgggaaatc ctttggcgat  
 120  
 ctcgtgtccc ggaggaaaca catgaggatt cacatcgtca agaaaccgt ggaatgtcgg  
 180  
 cagtgcggga agaccttcg aaaccagtcc atccttaaga ctcacatgaa ctctcacact  
 240  
 ggagagaaac catacgggtg cgatctctgc gggaaagctt tcagcgcgag ttcaaacctc  
 300  
 accgcacaca ggaagataca caccgaagag agacgctacg aatgcgccgc ctgcgggaaa  
 360  
 gtcttcggtg actatttata ccggcggagg cacatgagcg ttcaccttgt aaagaaacga  
 420  
 gttgagtgtg ggcattgtgg caaggccttc aggaaccagt caacgctgaa gacgcacatg  
 480  
 cgaagccaca cgggggagaa accgtacgaa tgcgatcact gtgggaaggc cttcagcata  
 540  
 ggctccaacc tgaatgtgca caggcggatc cacaccgggg agaagcccta cgaatgcctt  
 600  
 gtctgcggga aagccttcag cgaccactca tccctcagga gccacgtgaa aactcaccgg  
 660

ggagagaagc tcttttngtg tcatccgtgt ggaaaaggct ccagtgagcg cgccttgctt  
720  
tagagacaca ggatgattca gaccggaaac agacctcgtg ggtgtaagag gaagcctctg  
780  
tgagctcgca ccttactggg tgcaaaagaa tccacggaac ttgggagaag tccagttcct  
840  
gtaaaaactg ggaagacgag gcgttctcat cccataggag gtttgtgaga actcacgccg  
900  
ggggtgaaaa tgtacgtctg tagcatggag aagccttcag gtacattcag ctcttaacaa  
960  
acacaggaag acttaatggc agcttggcat ttaatgtcaa aatccaagcc gtggcattta  
1020  
atgtcaaaat gacttcagac cacttctagc cttctgggcc catgagtaat aatgagcaca  
1080  
ctaggagca tctctgtaaa cacagtggct ggggaaaccc ttcctagtct cacttgattc  
1140  
ctcatgacgg aaatcacact aaagagagaa atcagtgaag taaggaacgt ggaaggctat  
1200  
gaatgggccg caaaccacgg ccagctgctt gtctttgtat ggcttgccag ctaacaatag  
1260  
tggttccatc ttttaaggaag aagaatgttt gatggagaaa atttgtggcc aatgaagtct  
1320  
gaaatacttc ctgtcatctg cccctttcca gaaaaacttg gccgaccctt ggtctacagc  
1380  
acgggttctc agtcggggcg cgatttggct gtctaggcgt catttgcaa tgtctagaga  
1440  
catttttggg agttagaatg gggggaagat actcctgact tgtaataaga agacatcaga  
1500  
gatgctgcta agtcggctcc agcacacagg agccccccac aacgaagagt tagtgcccc  
1560  
aaacgtcact gttgctgagg ttgaaaataa tcatgcagtc attcctcaat tactgcctgc  
1620  
agcaattcct ccatttttat gaatcttctg agcacttacg ctaggagaaa tttcttttac  
1680  
aaaactttta aaatacaatt agtgctgata attcctatgt ggaaatgatt ccagccatgg  
1740  
tcccctcact tgagcatgtg aatattctca cggagagaag cccagcgag attttccggt  
1800  
gaatacggga ttgcacttac tctttcatca cggaaacaga ccccccgaga gaagcccca  
1860  
cgagatttct cgggtaatac gggactgcac gtactctctc atcatgaaaa cagagccccg  
1920  
ttcataaatt tttcatcttt atttttaagg ttatactcct cttaaataacc cttaagcctc  
1980  
atcaagaaag gtttgtttat agtattttta ctatagcttc atccttgata acgtccta  
2040  
ttccttctgg acaacctcct tgaccaatgg catattgaga tctatgtgac atgaggatat  
2100  
ttctcagtac cactttgtta ctggtacctg atgcacacgg attgcgacca gagcatgatg  
2160  
cttccatcaa gtggtaatat gtttgcagcc tgctgtccag ccaagagtga cagatacttc  
2220  
tagtgacttc cccggtatcc actctcatct tcttccaata tcaagagaat ccagggtctg  
2280

tcagattagt aaggtgtgct aatctaaatt ttaaaaaatc tcttacaggt tttcttgag  
 2340  
 ctggtaccat ccatgtctca cagccctggc cactgacaga tcagcagatg tcaccacgtg  
 2400  
 ggcttctgag aaagctcttg aatggggatc gttcttaaac atgaattcct ccctgtatgt  
 2460  
 tttgttcttt gctttacttt tcaccttgca aagagatcca gtacctagta ttggaagatc  
 2520  
 caccttaacg accgtgcata tgaaaaccac agtctaagga agtgactgca gaaagctcac  
 2580  
 agcgaccctg gcctcccctg tggcctcttt gagtgtctgc agcagccctg gacttccaga  
 2640  
 cttctatcac atgagaaaaa ataaaactga ttattgggttt aagctgcaaa aaaaaaaaaa  
 2700  
 aaaaaaaaaa  
 2709

<210> 598

<211> 240

<212> PRT

<213> Homo sapiens

<400> 598

Xaa	Ala	Cys	Thr	Gln	Cys	Gly	Lys	Ala	Phe	Arg	Trp	Lys	Ser	Asn	Phe	1	5	10	15
Asn	Leu	His	Lys	Lys	Asn	His	Met	Val	Glu	Lys	Thr	Tyr	Glu	Cys	Lys	20	25	30	
Glu	Cys	Gly	Lys	Ser	Phe	Gly	Asp	Leu	Val	Ser	Arg	Arg	Lys	His	Met	35	40	45	
Arg	Ile	His	Ile	Val	Lys	Lys	Pro	Val	Glu	Cys	Arg	Gln	Cys	Gly	Lys	50	55	60	
Thr	Phe	Arg	Asn	Gln	Ser	Ile	Leu	Lys	Thr	His	Met	Asn	Ser	His	Thr	65	70	75	80
Gly	Glu	Lys	Pro	Tyr	Gly	Cys	Asp	Leu	Cys	Gly	Lys	Ala	Phe	Ser	Ala	85	90	95	
Ser	Ser	Asn	Leu	Thr	Ala	His	Arg	Lys	Ile	His	Thr	Gln	Glu	Arg	Arg	100	105	110	
Tyr	Glu	Cys	Ala	Ala	Cys	Gly	Lys	Val	Phe	Gly	Asp	Tyr	Leu	Ser	Arg	115	120	125	
Arg	Arg	His	Met	Ser	Val	His	Leu	Val	Lys	Lys	Arg	Val	Glu	Cys	Arg	130	135	140	
His	Cys	Gly	Lys	Ala	Phe	Arg	Asn	Gln	Ser	Thr	Leu	Lys	Thr	His	Met	145	150	155	160
Arg	Ser	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asp	His	Cys	Gly	Lys	165	170	175	
Ala	Phe	Ser	Ile	Gly	Ser	Asn	Leu	Asn	Val	His	Arg	Arg	Ile	His	Thr	180	185	190	
Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Leu	Val	Cys	Gly	Lys	Ala	Phe	Ser	Asp	195	200	205	
His	Ser	Ser	Leu	Arg	Ser	His	Val	Lys	Thr	His	Arg	Gly	Glu	Lys	Leu	210	215	220	
Phe	Xaa	Cys	His	Pro	Cys	Gly	Lys	Gly	Ser	Ser	Glu	Arg	Ala	Xaa	Leu	225	230	235	240

<210> 599  
 <211> 340  
 <212> DNA  
 <213> Homo sapiens

<400> 599  
 acgcgtgcct cgcgactctt gacgtcgtgg tggctgcgct cggtcgtgtc actcctcttg  
 60  
 ttcggcgtca tggcgcaggt gctagggcgtg gccgtgcatc tgagtctgca ccgctttgccc  
 120  
 caggcatggt tgccggggccg catcccttgc acttgcagtc cgtggcctat cggccgagggc  
 180  
 gcaggcctgc agttggagcc gtgcgtgggt gtcccgcgcg aggagcgtgt tggcagacta  
 240  
 tgggggctcgt cggaggacga ggatgtgagt ggcgatggct ttgcgcgact gggcgtattc  
 300  
 caccggcgca tgggtgctcca gatcgtccag ggcgatgatca  
 340

<210> 600  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 600  
 Met Pro Trp Thr Ile Trp Ser Thr Ile Ala Gly Trp Asn Thr Pro Ser  
 1 5 10 15  
 Arg Ala Lys Pro Ser Pro Leu Thr Ser Ser Ser Asp Glu Pro His  
 20 25 30  
 Ser Leu Pro Thr Arg Ser Ser Arg Gly Thr Pro Thr His Gly Ser Asn  
 35 40 45  
 Cys Arg Pro Ala Pro Arg Pro Ile Gly His Gly Leu Gln Val Gln Gly  
 50 55 60  
 Met Arg Pro Gly Lys His Ala Trp Ala Lys Arg Cys Arg Leu Arg Cys  
 65 70 75 80  
 Thr Ala Thr Pro Ser Thr Cys Ala Met Thr Pro Asn Lys Arg Ser Asp  
 85 90 95  
 Thr Thr Glu Arg Ser His His Asp Val Lys Ser Arg Glu Ala Arg  
 100 105 110

<210> 601  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 601  
 gccggcggca gcgacatctc gctcaacgtc ggcgtgcgcg gcctgacttc ggcgtctttct  
 60  
 ccgcgctcca ccattttgat ggacggcgtc ccgctggcgg tcgcgcctta cggccagccc  
 120  
 cagctgtcga tggccccgct gtctatcgggt aatctgcaat cggtaggacgt ggtgcgcggc  
 180  
 ggcggcgcgg tgcgctacgg gccgcagaac gtcggcggcg tgatcaactt cgttaccgca  
 240

gacattccca aaacgtttgg cggtgccgcc agcgtacaaa cccaggggtgc cagccacggc  
 300  
 ggccctgaaga ccctgaccag cgctcccggtg ggcggcaccg cagacaacgg cctcggcgcc  
 360  
 gagctgctct actccggcct gcacggccag ggctaccgcg acaacaacga caacaccgac  
 420  
 n  
 421

<210> 602  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 602  
 Ala Gly Gly Ser Asp Ile Ser Leu Asn Val Gly Val Arg Gly Leu Thr  
 1 5 10 15  
 Ser Arg Leu Ser Pro Arg Ser Thr Ile Leu Met Asp Gly Val Pro Leu  
 20 25 30  
 Ala Val Ala Pro Tyr Gly Gln Pro Gln Leu Ser Met Ala Pro Leu Ser  
 35 40 45  
 Ile Gly Asn Leu Gln Ser Val Asp Val Val Arg Gly Gly Gly Ala Val  
 50 55 60  
 Arg Tyr Gly Pro Gln Asn Val Gly Gly Val Ile Asn Phe Val Thr Arg  
 65 70 75 80  
 Asp Ile Pro Lys Thr Phe Gly Gly Ala Ala Ser Val Gln Thr Gln Gly  
 85 90 95  
 Ala Ser His Gly Gly Leu Lys Thr Leu Thr Ser Ala Ser Val Gly Gly  
 100 105 110  
 Thr Ala Asp Asn Gly Leu Gly Ala Glu Leu Leu Tyr Ser Gly Leu His  
 115 120 125  
 Gly Gln Gly Tyr Arg Asp Asn Asn Asp Asn Thr Asp  
 130 135 140

<210> 603  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 603  
 nagggcggca tgcacgaaag cttgcgcaaa cgctcgctgg aaggcttgga caagatcggc  
 60  
 ttcgacggcc tggccatcgg cggtctgtcg gtgggcgagc ccaagcacga gatgatcaag  
 120  
 gtgctggatt acctgccggg cctgatgccg gctgacaaac ctcgttacct tatgggcgtt  
 180  
 ggcaaaccgg aagacctcgt agaggggtgtg cgccgcgggtg tggacatggt cgattgcgtg  
 240  
 atgccaaccc gtaatgcccg caatgggcat ctgttcacgc atacaggcgt gctgaagatc  
 300  
 cgtaacgcg  
 309

<210> 604

<211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 604  
 Xaa Gly Gly Met His Glu Ser Leu Arg Lys Arg Ser Leu Glu Gly Leu  
 1 5 10 15  
 Asp Lys Ile Gly Phe Asp Gly Leu Ala Ile Gly Gly Leu Ser Val Gly  
 20 25 30  
 Glu Pro Lys His Glu Met Ile Lys Val Leu Asp Tyr Leu Pro Gly Leu  
 35 40 45  
 Met Pro Ala Asp Lys Pro Arg Tyr Leu Met Gly Val Gly Lys Pro Glu  
 50 55 60  
 Asp Leu Val Glu Gly Val Arg Arg Gly Val Asp Met Phe Asp Cys Val  
 65 70 75 80  
 Met Pro Thr Arg Asn Ala Arg Asn Gly His Leu Phe Ile Asp Thr Gly  
 85 90 95  
 Val Leu Lys Ile Arg Asn Ala  
 100

<210> 605  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<400> 605  
 acgcgttcac gatagggtag ttgcctatatt caacgcgggc ggtattttcc tgcacaacaa  
 60  
 actggcccaa ggctgggcta tagtcaggtg catagtactt ggtgaagtag cgtacgtccg  
 120  
 caccacatc acatttcagt accttggtta tcttcaatcg gaaaaaaga ttggagtaaa  
 180  
 tggtgagttt tggtaatggc aacgccgttt gactggaaga gttttggaag gtaatgaccg  
 240  
 attcccagtg caaagggtccc catgctacat cctgcgacaa tgaggccggt agcacgttta  
 300  
 ttgcctcgct gctttgccga acgccaacct ctgtaccgat acgctgatac tgattgttga  
 360  
 tggatataggc ttgcgccagg taggtataat tgggtcaattc gtccatggca atgcgcagtg  
 420  
 aagtcttg  
 428

<210> 606  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 606  
 Met Asp Glu Leu Thr Asn Tyr Thr Tyr Leu Ala Gln Ala Tyr Thr Ile  
 1 5 10 15  
 Asn Asn Gln Tyr Gln Arg Ile Gly Thr Glu Val Gly Val Arg Gln Ser  
 20 25 30  
 Ser Glu Ala Ile Asn Val Leu Thr Ala Ser Leu Ser Gln Asp Val Ala



35	40	45
Trp Gly Pro Leu His Trp Glu Ser Val Ile Thr Phe Gln Asn Ser Ser		
50	55	60
Ser Gln Thr Ala Leu Pro Leu Pro Lys Leu Asn Ile Tyr Ser Asn Leu		
65	70	75
Phe Phe Arg Leu Lys Ile Ala Lys Val Leu Lys Cys Asp Val Gly Ala		80
	85	90
Asp Val Arg Tyr Phe Thr Lys Tyr Tyr Ala Pro Asp Tyr Ser Pro Ala		95
	100	105
Leu Gly Gln Phe Val Val Gln Glu Asn Thr Asp Arg Val Glu Ile Gly		110
	115	120
Asn Tyr Pro Ile Val Asn Ala		125
130	135	

&lt;210&gt; 607

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 607

gatacagatg aattgtgggc gtacacgtac gagaatgtga tggcgctaaa cttgccgcct  
60  
gacattgtgt gtaaaggatt ctttagaaaa ttggaaaacg tagtgaccgg agtcaatttg  
120  
gttttcaacg gcaaacatta tcaaattgta aagaaagagg atgacctatt caaattgacc  
180  
aaaagcaatt gttacaagtt gagcaacata aaatttaaca attggaaata cttgtacttg  
240  
acaacgcacg gtgtgtacaa cgtgttcacc aacagctttc attcgagctg tccatttttg  
300  
ttgggcacca cgttgccgca gacattcaag aagcccacg acgaaaagta tttgcccgag  
360  
gacgcg  
366

&lt;210&gt; 608

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 608

Asp His Asp Glu Leu Trp Ala Tyr Thr Tyr Glu Asn Val Met Ala Leu		
1	5	10
Asn Leu Pro Pro Asp Ile Val Cys Lys Gly Phe Phe Arg Lys Leu Glu		15
	20	25
Asn Val Val Thr Gly Val Asn Leu Val Phe Asn Gly Lys His Tyr Gln		30
	35	40
Ile Val Lys Lys Glu Asp Asp Leu Phe Lys Leu Thr Lys Ser Asn Cys		45
	50	55
Tyr Lys Leu Ser Asn Ile Lys Phe Asn Asn Trp Lys Tyr Leu Tyr Leu		60
65	70	75
Thr Thr His Gly Val Tyr Asn Val Phe Thr Asn Ser Phe His Ser Ser		80
	85	90
Cys Pro Phe Leu Leu Gly Thr Thr Leu Pro Gln Thr Phe Lys Lys Pro		95

100 105 110  
 Thr Asp Glu Lys Tyr Leu Pro Glu Asp Ala  
 115 120

<210> 609  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 609  
 nacgcgttat gacacggcct cctccaaggt cagtgtcatc gagtcacgta actcgtcggg  
 60  
 tgggtcgggtt ggaacgagtc cgtcatgagc cgggtcgcca tggacgactc cagcagtcgg  
 120  
 taccagcct ggaagcagga cccccacgag acggaatcgc cggcttccaa gtcgtcgccc  
 180  
 ccgaagcctc aaacttcccc cgccccgtac gccgggcccgg ctccgaagac accggccaca  
 240  
 cctggaccat ctggggcgagg ggcgcgcgcg tgggtggaggc ggggtggagcc g  
 291

<210> 610  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 610  
 Met Ser Pro Val Ala Met Asp Asp Ser Ser Ser Pro Tyr Pro Ala Trp  
 1 5 10 15  
 Lys Gln Asp Pro His Ala Thr Glu Ser Pro Ala Ser Lys Ser Ser Pro  
 20 25 30  
 Pro Lys Pro Gln Thr Ser Pro Ala Pro Tyr Ala Gly Pro Ala Pro Lys  
 35 40 45  
 Thr Pro Ala Thr Pro Gly Pro Ser Gly Ala Gly Ala Pro Pro Trp Trp  
 50 55 60  
 Trp Arg Val Glu Pro  
 65

<210> 611  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 611  
 nnnatcttgt gtcgattttc ggtcgcatac actatggggg agtattgtat aatgcggcgg  
 60  
 tgtaccaag tagagaggtg ttcatgcca cacagtccgg aagaaaagaa gcaagcactg  
 120  
 acgcgcatac ggccatcaa aggtcaggta gcgactcttg agcaagcgcg tgatgcaggt  
 180  
 gcgaaatgtc ctgcaattct tcagcagctt gcggccgttc gtggcgcagt caacggattg  
 240  
 atggcaacgg ttctggagag ctatctgcgg gaagagtttc ccagtagcga aatcaggagc  
 300

gattcgcaga acaagtccat tgacgagacc atctctatcg tccgctccta tctgcggtag  
 360  
 aggcaccagg gtgtcctcgg tgagggcaaaa ttt  
 393

<210> 612  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 612  
 Xaa Ile Leu Cys Arg Phe Ser Val Ala Tyr Thr Met Gly Glu Tyr Cys  
 1 5 10 15  
 Ile Met Arg Arg Cys Thr Gln Val Glu Arg Cys Ser Met Pro His Ser  
 20 25 30  
 Pro Glu Glu Lys Lys Gln Ala Leu Thr Arg Ile Arg Arg Ile Lys Gly  
 35 40 45  
 Gln Val Ala Thr Leu Glu Gln Ala Leu Asp Ala Gly Ala Lys Cys Pro  
 50 55 60  
 Ala Ile Leu Gln Gln Leu Ala Ala Val Arg Gly Ala Val Asn Gly Leu  
 65 70 75 80  
 Met Ala Thr Val Leu Glu Ser Tyr Leu Arg Glu Glu Phe Pro Ser Ser  
 85 90 95  
 Glu Ile Arg Ser Asp Ser Gln Asn Lys Ser Ile Asp Glu Thr Ile Ser  
 100 105 110  
 Ile Val Arg Ser Tyr Leu Arg  
 115

<210> 613  
 <211> 567  
 <212> DNA  
 <213> Homo sapiens

<400> 613  
 gaaaatgctc ctggcgccctc agggaagggtc cttctcaaag aaaaggatgg ggctgaatcg  
 60  
 ctggaaacgg ttcacaagga agccgagtcc caagcctact tttggtcctg acagtgtgga  
 120  
 acactggata aagagagtgg agaaagcctc agagtttgca gtgtcaaag cattttttac  
 180  
 tagaaattca gatttaccta gaagtccttg gggccaaatc acagatttga aaacatctga  
 240  
 gcaaatagag gatcatgatg aaatctatgc agaagctcag gagctgggtca atgactgggt  
 300  
 agacaccaaaa cttaagcaag aattagcaag tgaggaagaa ggtgatgcta aaaacactgt  
 360  
 gtcaagtgtc actattatgc cggaagccaa tggccatttg aaatatgaca agtttgatga  
 420  
 tttatgtggc tatttggagg aagaagagga aagtaccacc gttcaaaaat ttatagacca  
 480  
 tctgtccat aaaaatgtgg tagattctgc aatgatggaa gatcttggaa ggaaggaaaa  
 540  
 ccaagacaag aagcagcaga aggatcc  
 567

<210> 614  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 614  
 Met Leu Leu Ala Pro Gln Gly Arg Ser Phe Ser Lys Lys Arg Met Gly  
 1 5 10 15  
 Leu Asn Arg Trp Lys Arg Phe Thr Arg Lys Pro Ser Pro Lys Pro Thr  
 20 25 30  
 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala  
 35 40 45  
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu  
 50 55 60  
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln  
 65 70 75 80  
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn  
 85 90 95  
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu  
 100 105 110  
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala  
 115 120 125  
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu  
 130 135 140  
 Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu  
 145 150 155 160  
 Leu His Lys Asn Val Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg  
 165 170 175  
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp  
 180 185

<210> 615  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 615  
 nnacgcgtgc tgccctaagt gacggattcc atgtcgggtgc gagtcgggtc ggggccgatg  
 60  
 ggccatgaac gggccctagc gagggccgga ctcggccccc tggccggatg cgacgaggcg  
 120  
 gggcggggcg cgtgtgcagg gccattggta gccgcagctg tcattcttga tgatcgcaga  
 180  
 tccggcagga ttgcggggct agcagattcc aagacactat ctgcggccaa gagagaggcc  
 240  
 ctgtttaacg tcatcatgga taaagctttg gcagtgtcgt gggtagctgt agaagccgac  
 300  
 gaatgcgac ggttggggat gcaggaggca gatatcagcg gcttgaggcg tgccgtgggtg  
 360  
 aggctgggag ttgaaccggg ctacgtgctg tcggacgggt tcccggtcga cggactgacg  
 420  
 gttcccgatc tgggaatgtg gaagggcgat tcagtgtgtg cgtgtgtggc agctgcctcc  
 480

atcgtggcca aagtggccag ggatcgcatc atgatcgcta tggacgccga gattcctggt  
 540  
 tacgattttg cgggtgcacaa ggggtacgag acagccttac accagcgctg tctgaaggag  
 600  
 ttaggaccgt ctcgtcagca ccggatgagc tacgccaatg tgcgacgagc ggctaggctt  
 660  
 cattcatcat gagtgccgaa gatct  
 685

<210> 616  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 616  
 Met Ser Val Arg Val Gly Ser Gly Pro Met Gly His Glu Arg Ala Leu  
 1 5 10 15  
 Ala Arg Ala Gly Leu Gly Pro Val Ala Gly Cys Asp Glu Ala Gly Arg  
 20 25 30  
 Gly Ala Cys Ala Gly Pro Leu Val Ala Ala Val Ile Leu Asp Asp  
 35 40 45  
 Arg Arg Ser Gly Arg Ile Ala Gly Leu Ala Asp Ser Lys Thr Leu Ser  
 50 55 60  
 Ala Ala Lys Arg Glu Ala Leu Phe Asn Val Ile Met Asp Lys Ala Leu  
 65 70 75 80  
 Ala Val Ser Trp Val Arg Val Glu Ala Asp Glu Cys Asp Arg Leu Gly  
 85 90 95  
 Met Gln Glu Ala Asp Ile Ser Gly Leu Arg Arg Ala Val Val Arg Leu  
 100 105 110  
 Gly Val Glu Pro Gly Tyr Val Leu Ser Asp Gly Phe Pro Val Asp Gly  
 115 120 125  
 Leu Thr Val Pro Asp Leu Gly Met Trp Lys Gly Asp Ser Val Cys Ala  
 130 135 140  
 Cys Val Ala Ala Ala Ser Ile Val Ala Lys Val Ala Arg Asp Arg Ile  
 145 150 155 160  
 Met Ile Ala Met Asp Ala Glu Ile Pro Gly Tyr Asp Phe Ala Val His  
 165 170 175  
 Lys Gly Tyr Ala Thr Ala Leu His Gln Arg Arg Leu Lys Glu Leu Gly  
 180 185 190  
 Pro Ser Arg Gln His Arg Met Ser Tyr Ala Asn Val Arg Arg Ala Ala  
 195 200 205  
 Arg Leu His Ser Ser  
 210

<210> 617  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<400> 617  
 nncacctgtt tggctcgggg cactcgcgga tcatgggtcga ggaaatgtgg ccgcgctacg  
 60  
 gctcgtttcc cggcttcaac cccatcgctg agctgtcgct gtcgttccac aacctcgctg  
 120

tcggcgccaa cggccagcgc caggccatgt tcctcgaaaa cgtttcgggc cttcccggag  
 180  
 cgaatcctcc gaaacttcga cctgtcccaa caagactctg cactcgtgat ttcacaaagc  
 240  
 gctgcaacgt cgtgccaatc gagatggccg aggagttcca gcgtcgcggc gtccgcgtcg  
 300  
 tctcgatcat ctcgctggcg cactcgcagg cgtcgac  
 337

<210> 618  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 618  
 Xaa Thr Cys Leu Ala Arg Gly Thr Arg Gly Ser Trp Ser Arg Lys Cys  
 1 5 10 15  
 Gly Arg Ala Thr Ala Arg Phe Pro Ala Ser Thr Pro Ser Ser Ser Cys  
 20 25 30  
 Arg Cys Arg Ser Thr Thr Ser Ser Ala Pro Thr Ala Ser Ala Arg  
 35 40 45  
 Pro Cys Ser Ser Lys Thr Phe Pro Ala Phe Pro Glu Arg Ile Leu Arg  
 50 55 60  
 Asn Phe Asp Leu Ser Gln Gln Asp Ser Ala Leu Val Ile Ser Ser Ser  
 65 70 75 80  
 Ala Ala Thr Ser Cys Gln Ser Arg Trp Pro Arg Ser Ser Ser Val Ala  
 85 90 95  
 Ala Ser Ala Ser Ser Arg Ser Ser Arg Trp Arg Thr Arg Arg Arg Arg  
 100 105 110

<210> 619  
 <211> 425  
 <212> DNA  
 <213> Homo sapiens

<400> 619  
 acgcgttttt tatgccgatc ttatgctcta acctagaaac aatatacagct acaaacctaa  
 60  
 tagctataag ataatatctg aaagcatcaa taggagtttt gatcatttcc gcatacctaa  
 120  
 gttttatagc atctttgtca gaaggcaaacc ctgccaaacc agatgaatcg atgccactct  
 180  
 caaacttgct caaatgttca attaaatcat ccaagttgtg gccatgctta ccgcttccag  
 240  
 attttgaatg aatcattact ttaattgatt tttcaatcgc taaatggaat tcccagcaag  
 300  
 caatagaagc ccgctcattt ttaaagctca gtatgtcact aatgcctttt tcgaagtggc  
 360  
 tccatattcc ctgcgccata ttagaagctg actgggttga atggcttgcc atgttcaaat  
 420  
 ctaga  
 425

<210> 620

<211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 620  
 Met Ala Ser His Ser Asn Gln Ser Ala Ser Asn Met Ala Gln Gly Ile  
   1                  5                  10                  15  
 Trp Ser His Phe Glu Lys Gly Ile Ser Asp Ile Leu Ser Phe Lys Asn  
           20                  25                  30  
 Glu Arg Ala Ser Ile Ala Cys Trp Glu Phe His Leu Ala Ile Glu Lys  
           35                  40                  45  
 Ser Ile Lys Val Met Ile His Ser Lys Ser Gly Ser Gly Lys His Gly  
   50                  55                  60  
 His Asn Leu Asp Asp Leu Ile Glu His Leu Ser Lys Phe Glu Ser Gly  
 65                  70                  75                  80  
 Ile Asp Ser Ser Gly Leu Ala Gly Leu Pro Ser Asp Lys Asp Ala Ile  
           85                  90                  95  
 Lys Leu Arg Tyr Ala Glu Met Ile Lys Thr Pro Ile Asp Ala Phe Glu  
           100                  105                  110  
 Tyr Tyr Leu Ile Ala Ile Arg Phe Val Ala Asp Ile Val Ser Arg Leu  
           115                  120                  125  
 Glu His Lys Ile Gly Ile Lys Asn Ala  
           130                  135

<210> 621  
 <211> 453  
 <212> DNA  
 <213> Homo sapiens

<400> 621  
 cccggcaagg gagccatctt gacgaatatg tccttgtggt gggtcgacca attggccgac  
 60  
 atcgtcgata accatctcgt gacggtggat gtccccgccg aggtcgcagg gcgcgccatg  
 120  
 gtcgttgagg aactcgacat gttccccggtc gaatgcgtcg tgcgggggcta cctcaccggg  
 180  
 tcagggtggg ccgaatatca gcgcaaccag gccgtgtgcg gaatccgcct tcccgagggg  
 240  
 ctgcagaatg ggtccccggt cgaagagccc attttcaccc cggcaattaa ggccccgcag  
 300  
 ggagaacatg acgagaacat cgactatcta cgcctggtag aactcgtcgg tccngatgn  
 360  
 tcagcgcagc tgcattgacct ttcgctgcgg gtctaccagc gtgcagagga gatcgctcgg  
 420  
 aagcgaggca tcctcctggc ggataccaag ctt  
 453

<210> 622  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 622  
 Pro Gly Lys Gly Ala Ile Leu Thr Asn Met Ser Leu Trp Trp Phe Asp

```

      1           5           10           15
Gln Leu Ala Asp Ile Val Asp Asn His Leu Val Ser Val Asp Val Pro
      20           25           30
Ala Glu Val Ala Gly Arg Ala Met Val Val Glu Glu Leu Asp Met Phe
      35           40           45
Pro Val Glu Cys Val Val Arg Gly Tyr Leu Thr Gly Ser Gly Trp Ala
      50           55           60
Glu Tyr Gln Arg Asn Gln Ala Val Cys Gly Ile Arg Leu Pro Glu Gly
      65           70           75           80
Leu Gln Asn Gly Ser Arg Leu Glu Glu Pro Ile Phe Thr Pro Ala Ile
      85           90           95
Lys Ala Pro Gln Gly Glu His Asp Glu Asn Ile Asp Tyr Leu Arg Leu
      100          105          110
Val Glu Leu Val Gly Pro Xaa Xaa Ser Ala Gln Leu His Asp Leu Ser
      115          120          125
Leu Arg Val Tyr Gln Arg Ala Glu Glu Ile Ala Arg Lys Arg Gly Ile
      130          135          140
Leu Leu Ala Asp Thr Lys Leu
      145          150

```

<210> 623  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

```

<400> 623
acgcgtccag tatgtccacg gaggacatgc ttgacctcga ctcgaacgtc tctactacg
60
cgaggaacta tcaggccgcg caatcagttg tggcgaaatt cgacgcgggc accattgccc
120
aagccgaaga cctgccacct gacgacaccc acacgggggc ggaactggta aagagcgtgg
180
tcaacagcat cacctgtgtg tcaccctgtg acatcgaaga tttcaccacc atagagatcc
240
aggggctggg actgcactgt gtcaggctct gggcgcttgg gctgctcgcc ctgtcactgc
300
ccagcgcacc catgcgggca caccctcgt acgccgcata tggcg
345

```

<210> 624  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

```

<400> 624
Met Ser Thr Glu Asp Met Leu Asp Leu Asp Ser Asn Val Ser Tyr Tyr
      1           5           10           15
Ala Arg Asn Tyr Gln Ala Ala Gln Ser Val Val Ala Lys Phe Asp Ala
      20           25           30
Gly Thr Ile Ala Gln Ala Glu Asp Leu Pro Pro Asp Asp Thr His Thr
      35           40           45
Gly Ala Glu Leu Val Lys Ser Val Val Asn Ser Ile Thr Cys Val Ser
      50           55           60
Pro Leu Tyr Ile Glu Asp Phe Thr Thr Ile Glu Ile Gln Gly Leu Gly

```



```

65              70              75              80
Leu His Cys Val Arg Leu Trp Ala Pro Gly Leu Leu Ala Leu Ser Leu
              85              90              95
Pro Ser Ala Pro Met Arg Ala His Pro Arg Tyr Ala Ala Tyr Gly
              100              105              110

```

<210> 625  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

```

<400> 625
ggtacccagc atgatgctgc tagacatttg ctgaatgcat agatgatttt tccagggcct
60
gtaatttaca gggagagcaa tggaggccca gagacaagat gattcagctc ctccactctg
120
ttcaggatca taccctaagg accaacaatgt ctgtctacct ttacactgag cccccaccca
180
gcccaaccacc tcccatgaga gacaggctct ccctgcctga gcttggaccc aggccccctt
240
tctgtgagc tcagaacaca tgcttgactg tgatgtaaca ggggtggcagc cccacagca
300
ttgcactctgc cccataactca gtgtggggag ataggacgc
339

```

<210> 626  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 626
Met Gly Gln Met Gln Cys Cys Gly Gly Cys His Pro Val Thr Ser Gln
1              5              10              15
Ser Ser Met Cys Ser Glu Leu Ser Arg Glu Gly Ala Trp Val Gln Ala
20              25              30
Gln Ala Gly Arg Ala Cys Leu Ser Trp Glu Val Val Gly Trp Val Gly
35              40              45
Ala Gln Cys Lys Gly Arg Gln Thr Cys Trp Ser Leu Gly Tyr Asp Pro
50              55              60
Glu Gln Ser Gly Gly Ala Glu Ser Ser Cys Leu Trp Ala Ser Ile Ala
65              70              75              80
Leu Pro Val Asn Tyr Arg Pro Trp Lys Asn His Leu Cys Ile Gln Gln
85              90              95
Met Ser Ser Ser Ile Met Leu Gly Thr
100              105

```

<210> 627  
 <211> 10319  
 <212> DNA  
 <213> Homo sapiens

```

<400> 627
nttcctccgc gaaggctcct ttgatattaa tagtggtggt gtcttgaaac tgacgtaatg
60

```

cgcgagact gaggtcctga caagcgataa catttctgat aaagacccga tcttactgca  
120  
atctctagcg tctctctttt tgggtgctgct ggtttctcca gacctcgct cctctcgatt  
180  
gctctctcgc ctctctatct cttttttttt tttttaacaa aaaaacaaca cccctcccc  
240  
tctccacccc ggcaccgggc acatccttgc tctatttctt ttctctttct ctctctctct  
300  
ctctctctct cttttttaat aagggtgggg gagggaaagg ggggggatgc aggaaagacc  
360  
ttttctctc cccccgcaa taatccaaga tcaactctgc aaacaacaga agacggttca  
420  
tggctttggc cgccgcgcca ccatctttcg ggctgccgag ggtgttcttg acgattaatc  
480  
aacagatgta cagatcagct ctcaaatgt cttctgtgtc ttctgagcgt cttctaagac  
540  
aattgcatta gcctcctgct agttgactaa tagaattaat aattgtaaaa agcactctaa  
600  
agccacatgc cttatgaagt caatgctggg tatgatttta caaatatggc ccggaaaaag  
660  
aaccctctc tgagaaacgt tgcaagtga ggcgagggcc agatcctgga gcctataggt  
720  
acagaaagca aggtatctgg aaagaacaaa gaattttctg cagatcagat gtcagaaaat  
780  
acggatcaga gtgatgctgc agaactaaat cataaggagg aacatagctt gcatgttcaa  
840  
gatccatctt ctagcagtaa gaaggacttg aaaagcgcag ttctgagtga gaaggctggc  
900  
ttcaattatg aaagccccag taaggaggga aactttccct cctttccgca tgatgaggtg  
960  
acagacagaa atatgttggc tttctcatct ccagctgctg ggggagtctg tgagcccttg  
1020  
aagtctccgc aaagagcaga ggcagatgac cctcaagata tggcctgcac cccctcaggg  
1080  
gactcactgg agacaaagga agatcagaag atgtcaccaa aggctacaga ggaaacaggg  
1140  
caagcacaga gtggtcaagc caattgtcaa ggtttgagcc cagtttcagt ggcccaaaa  
1200  
aaccacaag tgccttcaga tgggggtgta agactgaata aatccaaaac tgacttactg  
1260  
gtgaatgaca acccagaccc ggcacctctg tctccagagc ttcaggactt taaatgcaat  
1320  
atctgtggat atggttacta cggcaacgac cccacagatc tgattaagca cttccgaaag  
1380  
tatcacttag gactgcataa ccgcaccagg caagatgctg agctggacag caaaatcttg  
1440  
gcccttcata acatggtgca gttcagccat tccaaagact tccagaaggc caaccgttct  
1500  
gtgtttctg gtgtgctgca ggacatcaat tcttcaaggc ctgttttact aaatgggacc  
1560  
tatgatgtgc aggtgacttc aggtggaaca ttcattggca ttggacggaa aacaccagat  
1620  
tgccaaggga acaccaagta tttccgctgt aaattctgca atttactta tatgggcaac  
1680

tcattccaccg aattagaaca acatttttctt cagactcacc caaacaaaat aaaagcttct  
1740  
ctccccctct ctgagggtgc aaaaccttca gagaaaaact ctaacaagtc catccctgca  
1800  
cttcaatcca gtgattctgg agacttgagg aaatggcagg acaagataac agtcaaagca  
1860  
ggagatgaca ctctgttggt gtactcagtg ccataaaagc ccctcgattc ctctagacaa  
1920  
aatggtacag aggccaccag ttactactgg tgtaaatttt gtagtttcag ctgtgagtca  
1980  
tctagctcac ttaaactgct agaacattat ggcaagcagc acggagcagt gcagtcaggc  
2040  
ggccttaatc cagagttaaa tgataagctt tccaggggct ctgtcattaa tcagaatgat  
2100  
ctagccaaaa gtgcagaagg agagacaatg accaagacag acaagagctc gagtggggct  
2160  
aaaaagaagg acttctccag caagggagcc gaggataata tggtaacgag ctataattgt  
2220  
cagttctgtg acttccgata ttccaaaagc catggccctg atgtaattgt agtggggcca  
2280  
cttctccgtc attatcaaca gctccataac attcacaagt gtaccattaa acactgtcca  
2340  
ttctgtccca gaggactttg cagcccagaa aagcaccttg gagaaattac ttatccgttt  
2400  
gctttagtaa aaagtaattg ttcccactgt gcactcttgc ttctgcactt gtctcctggg  
2460  
gcggctggaa gctcgcgagt caaacatcag tgccatcagt gttcattcac caccctgac  
2520  
gtagatgtac tcctctttca ctatgaaagt gtgcatgagt cccaagcatc ggatgtcaaa  
2580  
caagaagcaa atcacctgca aggatcggat gggcagcagt ctgtcaagga aagcaaagaa  
2640  
cactcatgta ccaaattgta ttttattacc caagtggaa aagagatttc ccgacactac  
2700  
aggagagcac acagctgcta caaatgccgt cagtgcagtt ttacagctgc cgatactcag  
2760  
tcactactgg agcacttcaa cactgttcac tgccaggaac aggacatcac tacagccaac  
2820  
ggcgaagagg acggtcatgc catatccacc atcaaagagg agcccaaat tgacttcagg  
2880  
gtctacaatc tgctaactcc agactctaaa atgggagagc cagtttctga gagtgtgggtg  
2940  
aagagagaga agctggaaga gaaggacggg ctcaaagaga aagtttggac cgagagttcc  
3000  
agtgatgacc ttcgcaatgt gacttggaaga ggggcagaca tcctgcgggg gagtccgtca  
3060  
tacacccaag caagcctggg gctgctgacg cctgtgtctg gcaccaaga gcagacaaag  
3120  
actctaaggg atagtcccaa tgtggaggcc gcccatctgg cgcgacctat ttatggcttg  
3180  
gctgtggaag ccaagggatt cctgcagggg gcgccagctg gcggagagaa gtctggggcc  
3240  
ctccccagc agtatcctgc atcgggagaa aacaagtcca aggatgaatc ccagtccttg  
3300

ttacggaggc gtagaggctc cgggtgttttt tgtgccaatt gcctgaccac aaagacctct  
3360  
ctctggcgaa agaatgcaaa tggcggatat gtatgcaacg cgtatggcct ctaccagaag  
3420  
cttcactcga ctcccaggcc tttaaacatc attaaacaaa acaacgggtga gcagattatt  
3480  
aggaggagaa caagaaagcg ccttaacca gaggcacttc aggtcgagca gctcaacaaa  
3540  
cagcagaggg gcagcaatga ggagcaagtc aatggaagcc cgtagagag gaggtcagaa  
3600  
gatcatctaa ctgaaagtca ccagagagaa attccactcc ccagcctaag taaatacgaa  
3660  
gcccagggtt cattgactaa aagccattct gctcagcagc cagtcctggt cagccaaact  
3720  
ctggatatcc acaaaaggat gcaacctttg cacattcaga taaaaagtcc tcaggaaagt  
3780  
actggagatc caggaaatag ttcattccgta tctgaaggga aaggaaagtc tgagagaggc  
3840  
agtcctatag aaaagtacat gagacctgcy aaacacccaa attattcacc accaggcagc  
3900  
cctattgaaa agtaccagta cccacttttt ggacttcctt ttgtacataa tgacttccag  
3960  
agtgaagctg attggctgcy gttctggagt aaatataagc tctccgttcc tgggaatccg  
4020  
cactacttga gtcacgtgcc tggcctacca aatccttgcc aaaactatgt gccttatccc  
4080  
accttcaatc tgctcctca tttttcagct gttggatcag acaatgacat tcctctagat  
4140  
ttggcgatca agcattccag acctgggcca actgcaaacg gtgcctccaa ggagaaaacg  
4200  
aaggcaccac caaatgtaaa aaatgaaggt cccttgaatg tagtaaaaac agagaaagtt  
4260  
gatagaagta ctcaagatga actttcaaca aaatgtgtgc actgtggcat tgtctttctg  
4320  
gatgaagtga tgtatgcttt gcatatgagt tgccatggtg acagtggacc tttccagtgc  
4380  
agcatatgcc agcatctttg cacggacaaa tatgacttca caacacatat ccagaggggc  
4440  
ctgcatagga acaatgcaca agtggaaaaa aatggaaaac cttaaagagta aaaccttagc  
4500  
acttagcaca attaaataga aataggtttt cttgatggga attcaatagc ttgtaatgtc  
4560  
ttatgaagac ctattaaaaa aatacttcat agagcctgcc ttatccaaca tgaaattccc  
4620  
ttcttttggt attctttctt ttgatgagta ggttaccaag attaaaaagt gagataaatg  
4680  
gtcaatgaga aagaatggaa gatggtaaac aatcactttt taaaacctgt taagtcaaaa  
4740  
ccatcttggc taatatgtac tggggaaata atccataaga gatatcacca gactagaatt  
4800  
aatatattta taaagaaaga gacccaaact gtctagaatt tgaaagggtt tacatattat  
4860  
tatactaaag cagtactgga ctggccattg gaccatttgt tccaaaaccc ataaattggt  
4920

gcctaaatTTT ataatgatca tgaaacccta ggcagaggag gagaaattga aggtccaggg  
4980  
caatgaaaga aaaatggcgc cctctcaatt tagtcttctc tcattggcca tgtttcagat  
5040  
tttgacctag aaatgcgagc tgtgggttagg cttgggttaga gtgcagcaag caacatgaca  
5100  
gatgggtggca cgctgttttt acccagccct gcctgtacat acacatgcac accctctctg  
5160  
atatttttTgt ccttttagatg ttcaaatact cagtagtcct tttgtttgcg gtttagattc  
5220  
attttTgtcca cacatgtacc catttttaaaa aacaatgtcc tcgatgcttc tgtagtgatt  
5280  
tcatttttagc caggatatttc tttcttTgtgt gtgatgaacc agtatggatt tgcttttcta  
5340  
agcctcctgt tggttactaa tctcacttgg cacattataa ctaaaggaat cccctcaatt  
5400  
caaaagcata gatggatata aatgtcagac cgtgggttta atttgtttag aacacatggc  
5460  
atttcttcac aaggtaacct gctgtattta tttattttct tttgggttaa tataatttcc  
5520  
aaactttTgtg gtcaggcagc gtctaagggt acgttaccac agactgacag ttggtatatg  
5580  
taccagccaa tcccttcatt aaatgtatac agatttagtt aagtagcatt aaataggatt  
5640  
cttagaagta tgtcctcata gaacttttaa tacttaaggc tttgtaaaaa ctatccatga  
5700  
agggaaaagct cctcagcata actgctcagg gaaatagggc taaataactg aacattaaat  
5760  
aattgggttaa aggtgctgtt agtcgagcct caatgcttgc tacaaggatg tatgtacaag  
5820  
gactgacttt aataatttgc atttatattgt cccaaccagt agttttatttt ttgccacgga  
5880  
gatgtagaag atattacaag ctactggatg cactgtcaga ttaacttatt tcattaaaga  
5940  
agttgggaga acaaatagga aaaaaaaaaac ttatttttct agtaaataatt aatgtattac  
6000  
atttcaaata atgggtgcctg acatattgaa taattatttt ctacagtgtg cgtatgcaac  
6060  
aaagatattc catcatgcat tagagtcagt tctggctctg cctagctgtt tacatttgca  
6120  
aatgtagcaa acaaggtaat gaagcaacta tttctattgc agtagatac cttttTgtgtg  
6180  
tgtgtgtgtg cattaaagtt gtaaaccggt acatgaaaca aatgaaagtt cttgctataa  
6240  
tggtatggaa aacaagaagg aaatgaaaat atttttatgc ctacttagga aaaaaagggT  
6300  
agcacttatt cattccaagt actttttttt ttttaatttt taagctctta actcacattg  
6360  
ttatgcttaa gatgataaac atatatcctc tttttattgc tttgtctatg tttcatatga  
6420  
aacatttcag aaattatttt gataagtgtt gctggaatct gcaacgctga tttttttttg  
6480  
cattctgtag tcgcatttgc actccatttt tacattaatt cgcagttgct ttgtatcatt  
6540

gttttgtttg ggttttgttt ctttttcaca gtgccgggtc ttcgtttctt aaagtggat  
6600  
ggcaggtaga gttcaaccag ttcgtgactg ttgtagcgaa tgaagttaaa aaaatgtctt  
6660  
tctgatgttg tgttgctcatt ttcatttttg catttttttg tttgcatatt aaaaaagag  
6720  
aaaagagaaa gcaagagaca gaaatcagga ctaagtcctc tgcttcagtt tcattgtaa  
6780  
cgggccttat tctgatctca cctgtcgcgt agctctaata ttcacataaa ctgaaataaa  
6840  
gaagtggaat gaggagcttt gacattcaaa ttatgtgatg taatttatct tccttaggaa  
6900  
ttttgatgga tgcattctca aatgtatagc cagacttgag aggtgacaat taaagatcta  
6960  
aaaaagagag gagattcccc caaacaacaa tatttaattt tcttagtaaa aagaataaca  
7020  
gaatgcctcg tggcaatcct taagcaacat tatctatgtg gactgcttaa atcagcaaaa  
7080  
caccagaagt ttggttaact tgggcaatat gacaagtatt actttttggg caaaactact  
7140  
cattaagcaa tttctctagt gtgtcggaca caaatagggt ctttattttt ggcattgatg  
7200  
cctttttatt ttcattcaat tttttttttt tctcagacag acatagtagt atcaactagc  
7260  
attggaaaat acatatcact attccttgaa tatttatggt cagtctactt ttagtaaaa  
7320  
tatttttgga tagcgttgac acgatagatc ttattccata cttctttatt attgataatt  
7380  
ttattttcat tttttgcttt cattattata catatttttg tggagaagag gttgggcttt  
7440  
tttgaaagag acaaaaattt attataacac taaacactcc ttttttgaca tattaagcc  
7500  
tttattccat ctctcaagat atattataaa atttattttt ttaatttaag atttctgaat  
7560  
tattttatct taaattgtga ttttaaacga gctattatgg tacggaactt ttttaatga  
7620  
ggaatttcat gatgatttag gaattttctc tcttggaana ggcttcccct gtgatgaaaa  
7680  
tgatgtgcca gctaaaattg tgtgccattt aaaaactgaa aatattttta aattatttgt  
7740  
ctatattcta aattgagctt tggatcaaac tttaggccag gaccagctca tgcgttctca  
7800  
ttcttctttt tctcactctt tctctcatca ctcacctctg tattcattct gttgtttggg  
7860  
atagaaaaat cataaagagc caaccatct cagaacgttg tggattgaga gagacactac  
7920  
atgactccaa gtatatgaga aaaggacaga gctctaattg ataactctgt agttcaaaaag  
7980  
gaaaagagta tgcccaattc tctctacatg acatattgag atttttttta atcaactttt  
8040  
aagatagtga tgttctgttc taaactgttc tgttttagtg aaggtagatt tttataaaac  
8100  
aagcatgggg attcttttct aaggtaatat taatgagaag ggaaaaaagt atctttaaca  
8160

gctctttggt gaagcctgtg gtagcacatt atgtttataa ttgcacatgt gcacataatc  
8220  
tattatgata caatgcaaat acagctccaa aaatattaaa tgtatatata ttttaaaatg  
8280  
cctgaggaaa tacatttttc ttaataaact gaagagtctc agtatggcta ttaaaataat  
8340  
tattagcctc ctgttggtgt gctgcaaaac atcacaaagt gaccggctct gagacctgtg  
8400  
aactgctgcc ctgttttagta aataaaatta atgcatttct agagggggaa tatctgccat  
8460  
ccagtgggtg aaatgtggag taaagaagct ggtggtctgc ttctgtgctg tatgccagcc  
8520  
ttttgcctta agttgagagg aggtcaactt tagctactgt ctttggtttg agagccatgg  
8580  
caaaaaaaaa aaaaaaaaaa aagatcaagt cgtctttggt gagccagtaa ggtgaaagct  
8640  
tgctgactgt ccaaggcaca agagaaaatt gaggaattga aatgcaacct gagtatcaaa  
8700  
ctaaatattc taatcaaagg taggtactgt taggtggaat tctatcagca ggcaactgca  
8760  
aatgagaaga agatagaagg acgcccgtcg ggactttgga gggcattgtt attttcccaa  
8820  
agaaagacgg ccaagggcag aggcattgat tctttgcaga gcacttcctt ttggtttttc  
8880  
agtactgttt catagacagt gggctcacat gttcctgata gtgctgcagt tgcttagaaa  
8940  
gcattccagt taattgcagt aattagaact tctggaatat gctagggcag aagtatgtca  
9000  
agtatgtcac atgaagaaaa tgtgaaattc aagagtaatc cacacgtgag aaactagaca  
9060  
atgtacattc atgtgttttc ttgaaaggaa agggagagct gtaagcttca ctctgtccta  
9120  
caccggagaa aagcaggaat aactttaccg tggaaataat gtttagcttt tatcagagaa  
9180  
aattgtcctt ctagagcata gagtcccaaa actcaattct gggtttcccc tggttttttt  
9240  
tttttttttt ttccaacat atgaactgca gcatactact ttttcttttt gtgcctcagg  
9300  
ttcctcagct gtaaaattga aaaatatatg tattaataat attattaata ataataatgg  
9360  
taatgtagta cttgtttgta aagcactttg agatccttgg ttgaaaggca ccataggagt  
9420  
gccaagtatt attatgtggc caaggggggt atttaaactg tcagttccca aaggccagga  
9480  
aaggttgggg tcatttttct taaagacgag ctgtaaatat caactaggca gccaatagtg  
9540  
ttgactatga agatgcaaaa ctattactag gctgataaaa tcatagtttc ttaatggcta  
9600  
ccaataaggc aaatatcaca ataataaacg ccaaattcct tagggcggac tatttgacaa  
9660  
ccacatggaa aactttgggg gaggcattgag gggggaacat ctcaaaatgc caatgtaaaa  
9720  
tttaacttac agcaatattc accagcagaa aatgtctttc atatggaatg atttcatgtt  
9780

gctaagaaaa agaattcaat ttgtagtcct gatttgaata ctagaatggt ggctataata  
 9840  
 gttctgttct tacaacacat gaaatttttt cgttttatct tattttgttt tcatagtgc  
 9900  
 tggtcatttc tactcacaaa catgttcttg gtgtatttct tatgcaaaca atcttcaggc  
 9960  
 agcaaagatg tctgttacat ctaaacttga ataataaagt tttaccacca gttacacata  
 10020  
 acggcggttg tatggtttat atggattcac tttcatcctt ctagcaatag gaaatacaga  
 10080  
 tcattgtaat atatatatat atatatacag gctctgctga attgaaatgg tgaaatcaaa  
 10140  
 tcaccattct aaaaaattat tacttatatt gataaagcct ggattctctc aacttgtttt  
 10200  
 gctttgcttt ttttctttaa ccaatcaatc tcttactgat agattttgtg taaaaagata  
 10260  
 tataactagtt tcttcagaaa gattaacaat aaaaattgtg tttatttcaa aaaaaaaaaa  
 10319

<210> 628

<211> 1294

<212> PRT

<213> Homo sapiens

<400> 628

Met	Pro	Tyr	Glu	Val	Asn	Ala	Gly	Tyr	Asp	Phe	Thr	Asn	Met	Val	Arg
1				5					10					15	
Lys	Lys	Asn	Pro	Pro	Leu	Arg	Asn	Val	Ala	Ser	Glu	Gly	Glu	Gly	Gln
		20					25					30			
Ile	Leu	Glu	Pro	Ile	Gly	Thr	Glu	Ser	Lys	Val	Ser	Gly	Lys	Asn	Lys
	35				40						45				
Glu	Phe	Ser	Ala	Asp	Gln	Met	Ser	Glu	Asn	Thr	Asp	Gln	Ser	Asp	Ala
	50				55						60	Glu	Leu	Asn	His
Glu	His	Ser	Leu	His	Val	Gln	Asp	Pro							
65					70				75					80	
Ser	Ser	Ser	Ser	Lys	Lys	Asp	Leu	Lys	Ser	Ala	Val	Leu	Ser	Glu	Lys
				85				90						95	
Ala	Gly	Phe	Asn	Tyr	Glu	Ser	Pro	Ser	Lys	Gly	Gly	Asn	Phe	Pro	Ser
			100				105						110		
Phe	Pro	His	Asp	Glu	Val	Thr	Asp	Arg	Asn	Met	Leu	Ala	Phe	Ser	Ser
		115				120					125				
Pro	Ala	Ala	Gly	Gly	Val	Cys	Glu	Pro	Leu	Lys	Ser	Pro	Gln	Arg	Ala
	130				135						140				
Glu	Ala	Asp	Asp	Pro	Gln	Asp	Met	Ala	Cys	Thr	Pro	Ser	Gly	Asp	Ser
145				150					155					160	
Leu	Glu	Thr	Lys	Glu	Asp	Gln	Lys	Met	Ser	Pro	Lys	Ala	Thr	Glu	Glu
			165					170						175	
Thr	Gly	Gln	Ala	Gln	Ser	Gly	Gln	Ala	Asn	Cys	Gln	Gly	Leu	Ser	Pro
		180					185						190		
Val	Ser	Val	Ala	Ser	Lys	Asn	Pro	Gln	Val	Pro	Ser	Asp	Gly	Gly	Val
		195				200						205			
Arg	Leu	Asn	Lys	Ser	Lys	Thr	Asp	Leu	Leu	Val	Asn	Asp	Asn	Pro	Asp
	210					215						220			
Pro	Ala	Pro	Leu	Ser	Pro	Glu	Leu	Gln	Asp	Phe	Lys	Cys	Asn	Ile	Cys



225					230					235				240	
Gly	Tyr	Gly	Tyr	Tyr	Gly	Asn	Asp	Pro	Thr	Asp	Leu	Ile	Lys	His	Phe
				245					250					255	
Arg	Lys	Tyr	His	Leu	Gly	Leu	His	Asn	Arg	Thr	Arg	Gln	Asp	Ala	Glu
			260					265					270		
Leu	Asp	Ser	Lys	Ile	Leu	Ala	Leu	His	Asn	Met	Val	Gln	Phe	Ser	His
			275					280					285		
Ser	Lys	Asp	Phe	Gln	Lys	Val	Asn	Arg	Ser	Val	Phe	Ser	Gly	Val	Leu
			290				295				300				
Gln	Asp	Ile	Asn	Ser	Ser	Arg	Pro	Val	Leu	Leu	Asn	Gly	Thr	Tyr	Asp
305					310					315					320
Val	Gln	Val	Thr	Ser	Gly	Gly	Thr	Phe	Ile	Gly	Ile	Gly	Arg	Lys	Thr
				325					330					335	
Pro	Asp	Cys	Gln	Gly	Asn	Thr	Lys	Tyr	Phe	Arg	Cys	Lys	Phe	Cys	Asn
			340					345					350		
Phe	Thr	Tyr	Met	Gly	Asn	Ser	Ser	Thr	Glu	Leu	Glu	Gln	His	Phe	Leu
			355				360					365			
Gln	Thr	His	Pro	Asn	Lys	Ile	Lys	Ala	Ser	Leu	Pro	Ser	Ser	Glu	Val
			370				375				380				
Ala	Lys	Pro	Ser	Glu	Lys	Asn	Ser	Asn	Lys	Ser	Ile	Pro	Ala	Leu	Gln
385					390					395					400
Ser	Ser	Asp	Ser	Gly	Asp	Leu	Gly	Lys	Trp	Gln	Asp	Lys	Ile	Thr	Val
				405					410					415	
Lys	Ala	Gly	Asp	Asp	Thr	Pro	Val	Gly	Tyr	Ser	Val	Pro	Ile	Lys	Pro
			420					425					430		
Leu	Asp	Ser	Ser	Arg	Gln	Asn	Gly	Thr	Glu	Ala	Thr	Ser	Tyr	Tyr	Trp
			435				440					445			
Cys	Lys	Phe	Cys	Ser	Phe	Ser	Cys	Glu	Ser	Ser	Ser	Ser	Leu	Lys	Leu
			450				455				460				
Leu	Glu	His	Tyr	Gly	Lys	Gln	His	Gly	Ala	Val	Gln	Ser	Gly	Gly	Leu
465					470					475					480
Asn	Pro	Glu	Leu	Asn	Asp	Lys	Leu	Ser	Arg	Gly	Ser	Val	Ile	Asn	Gln
				485					490					495	
Asn	Asp	Leu	Ala	Lys	Ser	Ser	Glu	Gly	Glu	Thr	Met	Thr	Lys	Thr	Asp
			500					505					510		
Lys	Ser	Ser	Ser	Gly	Ala	Lys	Lys	Lys	Asp	Phe	Ser	Ser	Lys	Gly	Ala
			515				520					525			
Glu	Asp	Asn	Met	Val	Thr	Ser	Tyr	Asn	Cys	Gln	Phe	Cys	Asp	Phe	Arg
			530				535				540				
Tyr	Ser	Lys	Ser	His	Gly	Pro	Asp	Val	Ile	Val	Val	Gly	Pro	Leu	Leu
545					550					555					560
Arg	His	Tyr	Gln	Gln	Leu	His	Asn	Ile	His	Lys	Cys	Thr	Ile	Lys	His
				565					570					575	
Cys	Pro	Phe	Cys	Pro	Arg	Gly	Leu	Cys	Ser	Pro	Glu	Lys	His	Leu	Gly
			580					585					590		
Glu	Ile	Thr	Tyr	Pro	Phe	Ala	Cys	Arg	Lys	Ser	Asn	Cys	Ser	His	Cys
			595				600					605			
Ala	Leu	Leu	Leu	Leu	His	Leu	Ser	Pro	Gly	Ala	Ala	Gly	Ser	Ser	Arg
			610				615				620				
Val	Lys	His	Gln	Cys	His	Gln	Cys	Ser	Phe	Thr	Thr	Pro	Asp	Val	Asp
625					630					635					640
Val	Leu	Leu	Phe	His	Tyr	Glu	Ser	Val	His	Glu	Ser	Gln	Ala	Ser	Asp
				645					650					655	
Val	Lys	Gln	Glu	Ala	Asn	His	Leu	Gln	Gly	Ser	Asp	Gly	Gln	Gln	Ser

660 665 670  
 Val Lys Glu Ser Lys Glu His Ser Cys Thr Lys Cys Asp Phe Ile Thr  
 675 680 685  
 Gln Val Glu Glu Glu Ile Ser Arg His Tyr Arg Arg Ala His Ser Cys  
 690 695 700  
 Tyr Lys Cys Arg Gln Cys Ser Phe Thr Ala Ala Asp Thr Gln Ser Leu  
 705 710 715 720  
 Leu Glu His Phe Asn Thr Val His Cys Gln Glu Gln Asp Ile Thr Thr  
 725 730 735  
 Ala Asn Gly Glu Glu Asp Gly His Ala Ile Ser Thr Ile Lys Glu Glu  
 740 745 750  
 Pro Lys Ile Asp Phe Arg Val Tyr Asn Leu Leu Thr Pro Asp Ser Lys  
 755 760 765  
 Met Gly Glu Pro Val Ser Glu Ser Val Val Lys Arg Glu Lys Leu Glu  
 770 775 780  
 Glu Lys Asp Gly Leu Lys Glu Lys Val Trp Thr Glu Ser Ser Ser Asp  
 785 790 795 800  
 Asp Leu Arg Asn Val Thr Trp Arg Gly Ala Asp Ile Leu Arg Gly Ser  
 805 810 815  
 Pro Ser Tyr Thr Gln Ala Ser Leu Gly Leu Leu Thr Pro Val Ser Gly  
 820 825 830  
 Thr Gln Glu Gln Thr Lys Thr Leu Arg Asp Ser Pro Asn Val Glu Ala  
 835 840 845  
 Ala His Leu Ala Arg Pro Ile Tyr Gly Leu Ala Val Glu Thr Lys Gly  
 850 855 860  
 Phe Leu Gln Gly Ala Pro Ala Gly Gly Glu Lys Ser Gly Ala Leu Pro  
 865 870 875 880  
 Gln Gln Tyr Pro Ala Ser Gly Glu Asn Lys Ser Lys Asp Glu Ser Gln  
 885 890 895  
 Ser Leu Leu Arg Arg Arg Arg Gly Ser Gly Val Phe Cys Ala Asn Cys  
 900 905 910  
 Leu Thr Thr Lys Thr Ser Leu Trp Arg Lys Asn Ala Asn Gly Gly Tyr  
 915 920 925  
 Val Cys Asn Ala Tyr Gly Leu Tyr Gln Lys Leu His Ser Thr Pro Arg  
 930 935 940  
 Pro Leu Asn Ile Ile Lys Gln Asn Asn Gly Glu Gln Ile Ile Arg Arg  
 945 950 955 960  
 Arg Thr Arg Lys Arg Leu Asn Pro Glu Ala Leu Gln Ala Glu Gln Leu  
 965 970 975  
 Asn Lys Gln Gln Arg Gly Ser Asn Glu Glu Gln Val Asn Gly Ser Pro  
 980 985 990  
 Leu Glu Arg Arg Ser Glu Asp His Leu Thr Glu Ser His Gln Arg Glu  
 995 1000 1005  
 Ile Pro Leu Pro Ser Leu Ser Lys Tyr Glu Ala Gln Gly Ser Leu Thr  
 1010 1015 1020  
 Lys Ser His Ser Ala Gln Gln Pro Val Leu Val Ser Gln Thr Leu Asp  
 1025 1030 1035 1040  
 Ile His Lys Arg Met Gln Pro Leu His Ile Gln Ile Lys Ser Pro Gln  
 1045 1050 1055  
 Glu Ser Thr Gly Asp Pro Gly Asn Ser Ser Ser Val Ser Glu Gly Lys  
 1060 1065 1070  
 Gly Ser Ser Glu Arg Gly Ser Pro Ile Glu Lys Tyr Met Arg Pro Ala  
 1075 1080 1085  
 Lys His Pro Asn Tyr Ser Pro Pro Gly Ser Pro Ile Glu Lys Tyr Gln

1090 1095 1100  
 Tyr Pro Leu Phe Gly Leu Pro Phe Val His Asn Asp Phe Gln Ser Glu  
 1105 1110 1115 1120  
 Ala Asp Trp Leu Arg Phe Trp Ser Lys Tyr Lys Leu Ser Val Pro Gly  
 1125 1130 1135  
 Asn Pro His Tyr Leu Ser His Val Pro Gly Leu Pro Asn Pro Cys Gln  
 1140 1145 1150  
 Asn Tyr Val Pro Tyr Pro Thr Phe Asn Leu Pro Pro His Phe Ser Ala  
 1155 1160 1165  
 Val Gly Ser Asp Asn Asp Ile Pro Leu Asp Leu Ala Ile Lys His Ser  
 1170 1175 1180  
 Arg Pro Gly Pro Thr Ala Asn Gly Ala Ser Lys Glu Lys Thr Lys Ala  
 1185 1190 1195 1200  
 Pro Pro Asn Val Lys Asn Glu Gly Pro Leu Asn Val Val Lys Thr Glu  
 1205 1210 1215  
 Lys Val Asp Arg Ser Thr Gln Asp Glu Leu Ser Thr Lys Cys Val His  
 1220 1225 1230  
 Cys Gly Ile Val Phe Leu Asp Glu Val Met Tyr Ala Leu His Met Ser  
 1235 1240 1245  
 Cys His Gly Asp Ser Gly Pro Phe Gln Cys Ser Ile Cys Gln His Leu  
 1250 1255 1260  
 Cys Thr Asp Lys Tyr Asp Phe Thr Thr His Ile Gln Arg Gly Leu His  
 1265 1270 1275 1280  
 Arg Asn Asn Ala Gln Val Glu Lys Asn Gly Lys Pro Lys Glu  
 1285 1290

<210> 629  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 629  
 nacgcgttcg ctgaggaggg aaccggtgcc agcaccttcc agctttccga gatctggatt  
 60  
 ggcatcttca ttggcgctct taccttcacg gggtcgctgg tggcctgggg caagctctcg  
 120  
 ggcaaagtcg cttcaaagcc actgaccctg ccaggtcgta attggatcaa ccttggtctg  
 180  
 ctgggtcgta tcatcgctcg cgggatctgg ttctccaatg tttctggtgg tategcgctg  
 240  
 ctgccgctgg cgctactgac cctggcctcg ctgttctctg gcttccactt cgtcgccgct  
 300  
 atcgggtggcg cggatatgcc agtcgtcatt tcgatgctga acagctactc cggttgggca  
 360  
 gctgccttct ccgatttag tttgcacatc ccggtgctta tcgtcaccgg t  
 411

<210> 630  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 630  
 Xaa Ala Phe Ala Glu Glu Gly Thr Gly Ala Ser Thr Phe Gln Leu Ser

1                      5                      10                      15  
 Glu Ile Trp Ile Gly Ile Phe Ile Gly Ala Leu Thr Phe Thr Gly Ser  
                     20                      25                      30  
 Leu Val Ala Trp Gly Lys Leu Ser Gly Lys Val Ala Ser Lys Pro Leu  
                     35                      40                      45  
 Thr Leu Pro Gly Arg Asn Trp Ile Asn Leu Gly Leu Leu Val Val Ile  
                     50                      55                      60  
 Ile Ala Cys Gly Ile Trp Phe Ser Asn Val Ser Gly Gly Ile Ala Trp  
 65                      70                      75                      80  
 Leu Pro Leu Ala Leu Leu Thr Leu Ala Ser Leu Phe Leu Gly Phe His  
                     85                      90                      95  
 Phe Val Ala Ala Ile Gly Gly Ala Asp Met Pro Val Val Ile Ser Met  
                     100                      105                      110  
 Leu Asn Ser Tyr Ser Gly Trp Ala Ala Ala Phe Ser Gly Phe Ser Leu  
                     115                      120                      125  
 His Ile Pro Val Leu Ile Val Thr Gly  
                     130                      135

&lt;210&gt; 631

&lt;211&gt; 275

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 631

gccggccagc gcatggagga ggaggccatg aacggcgacc ggactgagag cgactggcag  
 60  
 gggctggtga gcgagtacct ggtgtgtaag aggaagctgg agagtaagaa ggaagccctg  
 120  
 ctgatcctct ccaaggagct ggacacctgt caacaggaaa gggaccagta caaactcatg  
 180  
 gccaatcagc tccgggagcg ccaccagtca ctgaagaaga agtaccgaga gctgattgat  
 240  
 ggagatccat cacttcctcc tgaaaaaagg aaaca  
 275

&lt;210&gt; 632

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 632

Met Glu Glu Glu Ala Met Asn Gly Asp Arg Thr Glu Ser Asp Trp Gln  
 1                      5                      10                      15  
 Gly Leu Val Ser Glu Tyr Leu Val Cys Lys Arg Lys Leu Glu Ser Lys  
                     20                      25                      30  
 Lys Glu Ala Leu Leu Ile Leu Ser Lys Glu Leu Asp Thr Cys Gln Gln  
                     35                      40                      45  
 Glu Arg Asp Gln Tyr Lys Leu Met Ala Asn Gln Leu Arg Glu Arg His  
                     50                      55                      60  
 Gln Ser Leu Lys Lys Lys Tyr Arg Glu Leu Ile Asp Gly Asp Pro Ser  
 65                      70                      75                      80  
 Leu Pro Pro Glu Lys Arg Lys  
                     85

<210> 633  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 633  
 nnacgcgtgg aagatctgct cgggcgccac cagttgaact acagcatcga atggcgccctg  
 60  
 tcgggccagc cgttcctgac cgcacgcgcg ncactggtgg atgcggtggt taacgccgtc  
 120  
 gaacactatt ctgagctgac gccacagttg ctgaccaccg ggggcacctc agacggtcgc  
 180  
 tttatcgccc agatggggcnc gcaagtgggt gagctggggc cgggtcaacgc gacgatccat  
 240  
 aaggtcaacg aatgcgtaca cgcagccgac ttgcaactgc tcagccgcat gtaccagcgc  
 300  
 atcatggagc aactggtcgc atgatcacgc cagaaatgct gaccggggcg tcgacagatc  
 360  
 acctggtgcc gctctggtaa accaccggtt gcagcccgcc gccgtaggcg cgttcctcgg  
 420

<210> 634  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 634  
 Xaa Arg Val Glu Asp Leu Leu Gly Arg His Gln Leu Asn Tyr Ser Ile  
 1 5 10 15  
 Glu Trp Arg Leu Ser Gly Gln Pro Phe Leu Thr Ala Arg Ala Xaa Leu  
 20 25 30  
 Val Asp Ala Val Val Asn Ala Val Glu His Tyr Ser Glu Leu Thr Pro  
 35 40 45  
 Gln Leu Leu Thr Thr Gly Gly Thr Ser Asp Gly Arg Phe Ile Ala Gln  
 50 55 60  
 Met Gly Xaa Gln Val Val Glu Leu Gly Pro Val Asn Ala Thr Ile His  
 65 70 75 80  
 Lys Val Asn Glu Cys Val His Ala Ala Asp Leu Gln Leu Leu Ser Arg  
 85 90 95  
 Met Tyr Gln Arg Ile Met Glu Gln Leu Val Ala  
 100 105

<210> 635  
 <211> 6918  
 <212> DNA  
 <213> Homo sapiens

<400> 635  
 ncccccaacc ggcagcccat cggcatcgtg ctcacggtgc tgggagtggt ggtcctggac  
 60  
 ttcagcgcgc atgccaccga ggggcccatc cgtgcctatc tgctggacgt ggtggacagc  
 120  
 gaggagcagg acatggccct caacatccac gccttctctg ccggcctcgg cggagccatc  
 180

ggctacgtgc tgggtgggct ggactggacc cagaccttcc tgggcagctg gttccggacc  
240  
cagaaccagg tgctcttctt ctttgccgcc atcatcttca cgggtgtccgt ggccctgcac  
300  
ctgttcagca tcgacgagga gcagtacagc ccgcagcagg agcgacgcgc tgaggagccc  
360  
ggcgccctgg atggggggcga gccgcacggc gtccctgcct tcccagacga ggtacagtgc  
420  
gagcacgagc tggccctgga ctaccgggac gtggacatca tgcgcagcaa aagcgactcg  
480  
gcgttgacag tgccggacac cgcgctggac ctggagcccc agctgctgtt cctgcacgac  
540  
atcgagccct ccatcttcca cgacgcctcc taccgcgcca cccccgcag caccagccag  
600  
gagctcgcca agaccaagct gccccgcctg gccaccttcc tcaaggaagc cgccaaggag  
660  
gacgagacct tgctggataa tcacttgaat gaagctaaag tcccaaacgg aagtggctcc  
720  
cccacaaaag acgcccctcg cggctacacc aggggtggaca cgaagccctc ggccacgtcg  
780  
agctccatgc ggcgggcgcg gcacgcgttc cgcaggcagg cctccagcac cttctcctac  
840  
tacggcaagc ttgggtccca ctgctaccgc taccggcgcg ccaacgccgt ggtgctgatc  
900  
aagccgtcgc gcagcatgag cgacctgtac gacatgcaga agcggcagcg gcagcaccgg  
960  
caccggaacc agagcggggc caccacctcc agcggggaca ccgagagtga ggagggggag  
1020  
ggcgagacca cgggtgcgcct gctgtggctc tccatgctga agatgccag ggagctgatg  
1080  
cggctgtgcc tctgccacct cctcacctgg ttctctgtca tcgccgaggc cgtgttctac  
1140  
accgaattca tgggcccagg catcttccga ggcgaccca agggccctc gaactcgacc  
1200  
gcctggcaag cctacaacgc cgggggtcaag atgggctgct ggggcctggt catttatgcc  
1260  
gccactggtg ctatttggtc agccctgtta cagaagtact tggacaacta cgacctgagc  
1320  
gtcaggggtga tctacgtgct ggggacgctg ggcttctctg tcggcacagc cgtgatggcc  
1380  
atgtttccca acgtctacgt cgccatggtc accatcagca ccatgggcat cgtctccatg  
1440  
agcatctcct actgcccgtc cgccctgctg ggccagtacc atgacatcaa gcagtacatc  
1500  
caccacagcc ccgggaactc caagcgaggg tttggcatag attgtgcat cctgtcctgc  
1560  
caagtgtaca tctcgcagat cctggtggcc tctgcccttg ggggcgtggt cgacgccgtg  
1620  
gggactgtcc gcgtcatccc catggtggcc tctgtgggct ctttctctgg cttcctgacg  
1680  
gccacattcc tggatgatcta tcccagctg tcagaggagg ccaaggagga gcagaaaggc  
1740  
ctgtcttccc cgttggccgg cgaaggcagg gccggcggga acagcgaaaa gccaccgtg  
1800

ctgaagctca cgcggaagga gggcctgcag ggaccggtgg agacagagtc cgtgggtctga  
1860  
gccgcactcc cgtttacaca cattccagcg ggcgggtggg cgggcgggcg ggcggcgggg  
1920  
ccaggccatg ggcgggagca gagacaccgc ggaaccctgc agatgctgtg gccgaccggy  
1980  
cagtgcgggc cagagcccct ccgcccccat agccacaatt cagtagtcgt agggtagggt  
2040  
tgagctacta agcaaatacc acactaacca ctttttcgat aattaaaaga atcatttgaa  
2100  
atatattttt taattgaaaa agatatttta atttcagctc ttttattctg cagggtgtatt  
2160  
attctgcatg tttttaaatg atataaaaca tttatataga caataagcaa cttagaaaaa  
2220  
ataagatttt gcatttctaa aattataatt gaaaacaaaa tctgacattc tctgctaagt  
2280  
cttatctgaa tgcttcagat aatggtagtg tagtcagtga ctaaaatatt tttatcaaat  
2340  
ttcctctctg tagacgcctg cagggtattga cgtctgtcag atctcgtcac attggctggg  
2400  
gccgcagctg ttggagagta tttttcttta tgattatttt agaaaaaaaa ttttcttttc  
2460  
cacaatgtgg ttctcttaga agaatgacgt atcttctttt cctcagcgag ttggacacat  
2520  
tgtgcccagg gcagccctgt ccttgggcag cgaccgcaca ccaaagctgg gaggaggctg  
2580  
gtccgggggg cctgggcaga agacagtgat ttgcaggggt ggctcccaga caccctgccc  
2640  
agggatgggc tgggcaccac ctgggggcgg agcgtgagct ccagacgagc tcctgcgtgc  
2700  
gcgtgtgagt gtgtctgcgc ccagccatgt gaccctgctc gtcccgtctg aaggactctc  
2760  
ctaggaggcc aggttgcccc tccagacccc tcccaacgtc agggggaagg aaacgttgac  
2820  
tttactgca ctttgattcg tctctaaacc atttgctggg gattcctgag agcagagctc  
2880  
ccagcgggcc ctgcctccca agtcccgcg caaggctacc tcgggtgtgt ggatgtgcga  
2940  
gggcctcccc cgcttgcgaa ggggacatgc gtgctggaac ctgtcggaac tccatgcctt  
3000  
cctgcctgc tcacctgctc gacgtggaa tcgggacagg tgcaaaggga cgcagacgtc  
3060  
tgggacagct aaggccctg tcaccggagg gctccgcaca gtcgttctgg tttcaacgaa  
3120  
taagcaaac tcgggcaagt actgcagcta tttggaaatg ttttccaaac cacagtctct  
3180  
ttagaactaa gcctatttga aacggctcgg gtaggcttac tgagatcagg agacagggag  
3240  
gccccgcaca tcacacagat aaagtcagac aattgtaatt aatacttttg ctgcctcaag  
3300  
ttgtttttta aataaagtac tttgaaatgc atgagaatca tgctgcaata tgatcattct  
3360  
agagcaata tatatatata cgtatatata tttcaagatg aaactaaagc agtttttaaa  
3420

taaattactt gaattttctg tgtatttaaa ggaacgactg tttaatgtac ttgatgggcc  
3480  
tctgggtcttg ccgtgtctcc tgccgctggg ggcactttgt agattgtgtg tttgtgtccg  
3540  
ggtggcagtt gggtagctgc tcacgcacgg tgtgtctgcc aggccacggg gtcccaggat  
3600  
cgcagagggc tgacttcaag acttcaagaa cattttctgg atgtgtggaa acttgagaat  
3660  
ggccttgtga atctcgtgct tggacagggc aagtcggact actgaaagtg ctgccagctt  
3720  
tgctgcgagc cctccggcca gcgggagccc cgtgggctgg gcactgtggc ccttcttctc  
3780  
tgggggacgg caccctggc ttctcacct cgccggggcg tccgtggcag ctactctat  
3840  
gcaacttgat cctctagcgg cttaagact gtagatcccc tctctgagac ctggctgtac  
3900  
ttgtcaggat ctgagggcg agtcccgtc ttagctgggt tctccggctt ctgctctga  
3960  
cgactataaa acagttggag gcaagaaagc agcggatgtg ggggtggcagt ggcctgaccc  
4020  
gaatcaagat ccgacccaaa ccacacccaaa tgtgggttca tctggggggc accccttgcc  
4080  
tgaggtctcc caccctcatc tgaaggccca ggggcccggat ccagggtca ccaaagccga  
4140  
ttctcgcga gctgggagtg cagaagtctc agggcctggc tgcgactga ttttaggag  
4200  
gaagaggggc ttcgcaaccc cctctgaat agtgtgttaa cccttgagat ccagcctcg  
4260  
actaatctga agtaaggaca acaaaggcca ttcagtgcgc tccacatggc cttgccacag  
4320  
tcactgtcag ggtatgaatg tgccggaagc cagtgccagc caggacagg cgtgactgtt  
4380  
gtgtgtcct cggtgacagg agtcgggtggc tgcacacttt gtagactcgt caagctgtca  
4440  
gcacttcagg tgtttgcaag caaagccctt cttagtgtgc aggtcagtgt gcagagccca  
4500  
aatgagggga ccgcaggggc tggggtccag ggtcagtaga gtcggtttct ggagctgcct  
4560  
tcctgggagg caggtgtggg tgaccggggc tctggcgggt cgtgtgggcc cggcctggcc  
4620  
acagcgggga ccaggtcacg acatctttgg cctcaacccc tcccctgcac tgagattatt  
4680  
tccagattgc actcacttga aaccgtccgt gtcgtcacct tgtgtcttaa gggaagccga  
4740  
gaagaagggc agacgggcag gctgtcttgt ctgcaaagcg ccattgcgcc cgcagcttgt  
4800  
gtgggtcagg ctgcagctcg ggtgtctgtg gcttctaacc ttgtacctca gacggatgca  
4860  
gtaacaaggc ggggctgggg acgccggtca gtgtcaaagg ggaggtgctc tggctgatag  
4920  
ccttgcccga gaggacgag gaggccgtgc gggtgcccc tggggaagct ggccagccat  
4980  
ccagtgtga ggacgcagct ggagttgggc tcgtggcacc cttggggtgt gggctgtgca  
5040



ggctggtggc ctgggtgcct ctgcacactg agtggagtgt caggcagggg gtgtcggttg  
5100  
gtcgagtctt gtgtaatgtg cgcagaccag ttaccaaact aggataatgt tggctctcatt  
5160  
tgtggtggtt ttgttcctta tacaagtcag ctaagtaaag actcttttaa cgagcttccc  
5220  
cttaacacat ggcagaagtt tccagggtgca ggaatgagag ctggcgggaa ggggcagagg  
5280  
ccgtgagctc tcagctgggc cggcctgcct gtgtccccct tcctgggtct gtcggcagac  
5340  
tggcatcatg acgttccttg gtggctgaag agctagcttt ggagtgttgt ttttctcact  
5400  
ctcaggcagg ggccttagct ggaatcctcc aacctgccac tgaacacgtc agtgctgtgt  
5460  
gctgcctctt ggacacctgc ccttgaaagc ctgagggccc tgggagaagc actctgtcca  
5520  
gtcctgtccc cgggggggag gcagggccac tgagccctcc tcagatgggt agtggcttcc  
5580  
aacagccatc aggagtgttt cttgaatgcc ccagggtgtg aggacttgggt ctgtgaccac  
5640  
ctagaacccc agagctgaac aggaagccgt ccctgcagca acaagagggc tggaaagggg  
5700  
agctgcaggc caccctcggc tctcccactg ctggggcggt gatgttcggg tgacatgttt  
5760  
gaaaaatact cttaaagata ccaactgttc ccttatatgg ctaatgggtt gtgcagccac  
5820  
cagcgatggc ggcccctatt agagaccagg tttgttaaaa caccaaata tgcgtgccac  
5880  
actagacatt aaccggcttc agaaaagatg gacacctttt cccacgctgt ttcgcttctt  
5940  
aactttggtc cagcttttagc caccacacag cgtgtgaggg actgctgctg cggagtccagc  
6000  
ctcgtttgtc cctccgcctc ccaccagcac gcgcgccttc tgagagacac cagctccctg  
6060  
cctccaagcc tgggtgccaca ggcttgtcgt gagggacccc tgcttccgag agctcctggg  
6120  
ggggttctgc ccttcaccac ctgggagagg tgtcagttca gttccgagtt gaacaaggcc  
6180  
cgtgcacaca gcatgttggg ggcccagccc aaagtctctg tcacctctc atgcaaagcc  
6240  
agccatcacc ctccggccag agctcaagggt ggccccttgg ccagcccctc cttgggtcct  
6300  
ccaggaggac tgagcacccc tcctagcggc atcccttgcc ctccacagtg ctgccagggg  
6360  
cacgtcgctc tgtgccgtgg actgagacca tcccctgggt acagaatgac ccgtttgttg  
6420  
gaaatgcctc gttgccagag aaactcccca ggcattctcg aacgaaacta ttagttcca  
6480  
ttgtgaactg gccacgggac agctttttat caacttatta agttggagca ctgtaatcgc  
6540  
gcttgctgag ttagcagtgg tggtaagcgt gtgttaaaca cataatgtta cgttttagga  
6600  
gagagaggtc gtaaggaagt gtcgtgtcgc tcatgactct cttctattag ttgggtaaca  
6660

gtggcctcat gtttgtgtct gtgtgtacac agagccctta ggttctgctc tgtttctttg  
 6720  
 ccaggtgaat gtttgtggca tgcgctgctg tccgcgcccc tctgtcctgc gcagggttca  
 6780  
 gctgtgcggc gccctgattt cctccatgca cacagaacct ccttgtgtct gtttctctgt  
 6840  
 tcctctgtgg ctgactcaat aaacttttcc ctctgaaaaa aaaaaaaaaa aaaaaaaaaa  
 6900  
 aaaaaaaaaa aaaaaaag  
 6918

<210> 636

<211> 619

<212> PRT

<213> Homo sapiens

<400> 636

Xaa Pro Asn Arg Gln Pro Ile Gly Ile Val Leu Thr Val Leu Gly Val  
 1 5 10 15  
 Val Val Leu Asp Phe Ser Ala Asp Ala Thr Glu Gly Pro Ile Arg Ala  
 20 25 30  
 Tyr Leu Leu Asp Val Val Asp Ser Glu Glu Gln Asp Met Ala Leu Asn  
 35 40 45  
 Ile His Ala Phe Ser Ala Gly Leu Gly Gly Ala Ile Gly Tyr Val Leu  
 50 55 60  
 Gly Gly Leu Asp Trp Thr Gln Thr Phe Leu Gly Ser Trp Phe Arg Thr  
 65 70 75 80  
 Gln Asn Gln Val Leu Phe Phe Phe Ala Ala Ile Ile Phe Thr Val Ser  
 85 90 95  
 Val Ala Leu His Leu Phe Ser Ile Asp Glu Glu Gln Tyr Ser Pro Gln  
 100 105 110  
 Gln Glu Arg Ser Ala Glu Glu Pro Gly Ala Leu Asp Gly Gly Glu Pro  
 115 120 125  
 His Gly Val Pro Ala Phe Pro Asp Glu Val Gln Ser Glu His Glu Leu  
 130 135 140  
 Ala Leu Asp Tyr Pro Asp Val Asp Ile Met Arg Ser Lys Ser Asp Ser  
 145 150 155 160  
 Ala Leu His Val Pro Asp Thr Ala Leu Asp Leu Glu Pro Glu Leu Leu  
 165 170 175  
 Phe Leu His Asp Ile Glu Pro Ser Ile Phe His Asp Ala Ser Tyr Pro  
 180 185 190  
 Ala Thr Pro Arg Ser Thr Ser Gln Glu Leu Ala Lys Thr Lys Leu Pro  
 195 200 205  
 Arg Leu Ala Thr Phe Leu Lys Glu Ala Ala Lys Glu Asp Glu Thr Leu  
 210 215 220  
 Leu Asp Asn His Leu Asn Glu Ala Lys Val Pro Asn Gly Ser Gly Ser  
 225 230 235 240  
 Pro Thr Lys Asp Ala Leu Gly Gly Tyr Thr Arg Val Asp Thr Lys Pro  
 245 250 255  
 Ser Ala Thr Ser Ser Ser Met Arg Arg Arg Arg His Ala Phe Arg Arg  
 260 265 270  
 Gln Ala Ser Ser Thr Phe Ser Tyr Tyr Gly Lys Leu Gly Ser His Cys  
 275 280 285  
 Tyr Arg Tyr Arg Arg Ala Asn Ala Val Val Leu Ile Lys Pro Ser Arg

```

      290              295              300
Ser Met Ser Asp Leu Tyr Asp Met Gln Lys Arg Gln Arg Gln His Arg
305              310              315              320
His Arg Asn Gln Ser Gly Ala Thr Thr Ser Ser Gly Asp Thr Glu Ser
      325              330              335
Glu Glu Gly Glu Gly Glu Thr Thr Val Arg Leu Leu Trp Leu Ser Met
      340              345              350
Leu Lys Met Pro Arg Glu Leu Met Arg Leu Cys Leu Cys His Leu Leu
      355              360              365
Thr Trp Phe Ser Val Ile Ala Glu Ala Val Phe Tyr Thr Asp Phe Met
      370              375              380
Gly Gln Val Ile Phe Glu Gly Asp Pro Lys Ala Pro Ser Asn Ser Thr
385              390              395              400
Ala Trp Gln Ala Tyr Asn Ala Gly Val Lys Met Gly Cys Trp Gly Leu
      405              410              415
Val Ile Tyr Ala Ala Thr Gly Ala Ile Cys Ser Ala Leu Leu Gln Lys
      420              425              430
Tyr Leu Asp Asn Tyr Asp Leu Ser Val Arg Val Ile Tyr Val Leu Gly
      435              440              445
Thr Leu Gly Phe Ser Val Gly Thr Ala Val Met Ala Met Phe Pro Asn
      450              455              460
Val Tyr Val Ala Met Val Thr Ile Ser Thr Met Gly Ile Val Ser Met
465              470              475              480
Ser Ile Ser Tyr Cys Pro Tyr Ala Leu Leu Gly Gln Tyr His Asp Ile
      485              490              495
Lys Gln Tyr Ile His His Ser Pro Gly Asn Ser Lys Arg Gly Phe Gly
      500              505              510
Ile Asp Cys Ala Ile Leu Ser Cys Gln Val Tyr Ile Ser Gln Ile Leu
      515              520              525
Val Ala Ser Ala Leu Gly Gly Val Val Asp Ala Val Gly Thr Val Arg
      530              535              540
Val Ile Pro Met Val Ala Ser Val Gly Ser Phe Leu Gly Phe Leu Thr
545              550              555              560
Ala Thr Phe Leu Val Ile Tyr Pro Asp Val Ser Glu Glu Ala Lys Glu
      565              570              575
Glu Gln Lys Gly Leu Ser Ser Pro Leu Ala Gly Glu Gly Arg Ala Gly
      580              585              590
Gly Asn Ser Glu Lys Pro Thr Val Leu Lys Leu Thr Arg Lys Glu Gly
      595              600              605
Leu Gln Gly Pro Val Glu Thr Glu Ser Val Val
      610              615

```

&lt;210&gt; 637

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 637

ngaaaaacag gatgaatccc gtatcattct taagcccgaa aagtactgaa tgtcgtcttc

60

tctcgatcgg tgatgatctg gaaaggaaaa atcatcgtga ctactacatc acccgctact

120

acgcaaagac cgtcagttgg caggaaagtt ggttcctggg cccttaatcc atgggtgtttt

180

tgtaggccct tattatTTTT cggaatgggtt cgggtttattg cgattccagt attcctcact  
 240  
 gtgccgaata tcattaatat cggaatccaa gccgcgggtg tggcgattat ggccttcggt  
 300  
 atgaccttcg tcatcggtac ctccggcatt gatttgtctg tgggttcggt cgcagctctt  
 360  
 tcagccatgg  
 370

<210> 638

<211> 99

<212> PRT

<213> Homo sapiens

<400> 638

Met	Ile	Trp	Lys	Gly	Lys	Ile	Ile	Val	Thr	Thr	Thr	Ser	Pro	Ala	Thr
1				5					10					15	
Thr	Gln	Arg	Pro	Ser	Val	Gly	Arg	Lys	Val	Gly	Ser	Trp	Ser	Leu	Asn
			20					25					30		
Pro	Trp	Cys	Phe	Cys	Arg	Pro	Leu	Leu	Phe	Phe	Gly	Met	Val	Arg	Phe
		35					40					45			
Ile	Ala	Ile	Pro	Val	Phe	Leu	Thr	Val	Pro	Asn	Ile	Ile	Asn	Ile	Gly
	50					55					60				
Ile	Gln	Ala	Ala	Val	Val	Ala	Ile	Met	Ala	Phe	Gly	Met	Thr	Phe	Val
65				70						75				80	
Ile	Val	Thr	Ser	Gly	Ile	Asp	Leu	Ser	Val	Gly	Ser	Val	Ala	Ala	Leu
				85					90					95	

Ser Ala Met

<210> 639

<211> 330

<212> DNA

<213> Homo sapiens

<400> 639

nacgcgtcga tgggcaacta catcttcagt cgggatgccc tggtcgaggc actcttcgca  
 60  
 gactcccagt ccgctgagtc gcgtcatgac atgggtggcg acatcatccc gagattcgtc  
 120  
 gagggcgggg acgcgcaggt ctacgacttc tgtgacaacc aggtgcccgg aaccaccgag  
 180  
 aaggatcggg actactggcg ggacgtggga actatcgatg cctaccacga cgcgcacatg  
 240  
 gacctcgtgt cgggtggaacc ggagttcaac ctctacaacc ccgactggcc gatctggagg  
 300  
 atccaggaac aggcaccggg agcgaaattt  
 330

<210> 640

<211> 110

<212> PRT

<213> Homo sapiens

&lt;400&gt; 640

```

Xaa Ala Ser Met Gly Asn Tyr Ile Phe Ser Arg Asp Ala Leu Val Glu
 1           5           10           15
Ala Leu Phe Ala Asp Ser Gln Ser Ala Glu Ser Arg His Asp Met Gly
          20           25           30
Gly Asp Ile Ile Pro Arg Phe Val Glu Ala Gly Asp Ala Gln Val Tyr
          35           40           45
Asp Phe Cys Asp Asn Gln Val Pro Gly Thr Thr Glu Lys Asp Arg Asp
          50           55           60
Tyr Trp Arg Asp Val Gly Thr Ile Asp Ala Tyr His Asp Ala His Met
65           70           75           80
Asp Leu Val Ser Val Glu Pro Glu Phe Asn Leu Tyr Asn Pro Asp Trp
          85           90           95
Pro Ile Trp Ser Ile Gln Glu Gln Ala Pro Gly Ala Lys Phe
          100          105          110

```

&lt;210&gt; 641

&lt;211&gt; 491

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 641

```

cgcggtgaccg gcgcggagaa cgtgcgcaag atcctcatgg gcgagcacca cctcgtgagc
60
accgagtggc ctcgcagcac ccgcatgttg ctgggccccca acacggtgtc caattccatt
120
ggcgacatcc accgcaacaa gcgcaagggtc ttctccaaga tcttcagcca cgaggccctg
180
gagagttacc tgcccaagat ccagctgggtg atccaggaca cactgcgcgc ctggagcagc
240
caccgaggg ccatcaacgt gtaccaggag gcgcagaagc tgaccttcg catggccatc
300
cgggtgctgc tgggcttcag catccctgag gaggaccttg ggcacctctt tgaggtctac
360
cagcagtttg tggacaatgt cttctccctg cctgtcgacc tgcccttcag tggctaccgg
420
cggggcattc aggctcggca gatcctgcag aaggggctgg agaaggccat ccgggagaag
480
ctgcagtga c
491

```

&lt;210&gt; 642

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 642

```

Arg Val Thr Gly Ala Glu Asn Val Arg Lys Ile Leu Met Gly Glu His
 1           5           10           15
His Leu Val Ser Thr Glu Trp Pro Arg Ser Thr Arg Met Leu Leu Gly
          20           25           30
Pro Asn Thr Val Ser Asn Ser Ile Gly Asp Ile His Arg Asn Lys Arg
          35           40           45
Lys Val Phe Ser Lys Ile Phe Ser His Glu Ala Leu Glu Ser Tyr Leu

```

50                      55                      60  
 Pro Lys Ile Gln Leu Val Ile Gln Asp Thr Leu Arg Ala Trp Ser Ser  
 65                      70                      75                      80  
 His Pro Glu Ala Ile Asn Val Tyr Gln Glu Ala Gln Lys Leu Thr Phe  
                     85                      90                      95  
 Arg Met Ala Ile Arg Val Leu Leu Gly Phe Ser Ile Pro Glu Glu Asp  
                     100                      105                      110  
 Leu Gly His Leu Phe Glu Val Tyr Gln Gln Phe Val Asp Asn Val Phe  
                     115                      120                      125  
 Ser Leu Pro Val Asp Leu Pro Phe Ser Gly Tyr Arg Arg Gly Ile Gln  
                     130                      135                      140  
 Ala Arg Gln Ile Leu Gln Lys Gly Leu Glu Lys Ala Ile Arg Glu Lys  
 145                      150                      155                      160  
 Leu Gln Cys

<210> 643  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 643  
 nagatctttg acatctacgt ggtcacctgt gactacctgc ccctaggggc tgagcaggat  
 60  
 gccatcacgc tgcgggaagg ccagtatgtg gaggtcctgg atgcagccca cccactgcgc  
 120  
 tggcttgtcc gcaccaagcc caccaagtcc agccccctac ggcagggctg ggtgtcacca  
 180  
 gcctacctgg acaggaggct caagctgtca cctgagtggg gggccgctga ggccccctgag  
 240  
 ttccctgggg aggtctgtgtc tgaagacgaa tacaaggcaa ggctgagctc tgtgatccag  
 300  
 gagctgctga gttctgagca ggccttcgtg gaggagctgc agttcctgca gagccaccac  
 360  
 ctgcagcacc tggagcgctg cccccacgtg cccatagctg tggccggcca gaaggcagtc  
 420  
 atcttccgca atgtgcggga catcgccgc ttccacagca gcttcctgca ggagttgcag  
 480  
 cagtgcgaca cggacgacga cgtggccatg tgcttcatca agaaccaggc ggcctttgag  
 540  
 cagtacctgg agttcctggt gggacgtgtg caggctgagt cggtggctgt cagcacggcc  
 600  
 atccaggagt tctacaagaa atacgcgt  
 628

<210> 644  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 644  
 Xaa Ile Phe Asp Ile Tyr Val Val Thr Ala Asp Tyr Leu Pro Leu Gly  
 1                      5                      10                      15  
 Ala Glu Gln Asp Ala Ile Thr Leu Arg Glu Gly Gln Tyr Val Glu Val

<400>. 646  
Met Val Gly Glu Thr Val Gly Ala Thr Ala Gly Thr Met Glu Leu Arg

```

1           5           10           15
Arg Ser Leu Cys His Pro Phe Trp Asn Pro Leu Ile Trp Lys Ile Trp
      20           25           30
Gly Ser Val Leu Phe Arg Arg Tyr Trp Arg His Trp Leu Asp Ile Leu
      35           40           45
Gln Pro Ser Gln Glu Ala Gln Lys Val Asp Val Ile Thr Thr Pro Ile
      50           55           60
Phe Gln Met Lys Lys Leu Ser Leu Trp Asp Leu Arg Lys Leu Pro Glu
65           70           75           80
Leu Glu Gln Leu Val Pro Gly Pro Tyr Thr His Ser Thr Val Ser
      85           90           95

```

&lt;210&gt; 647

&lt;211&gt; 421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 647

```

acgcgtttcg gttcttgagc gcttccacca attcagcggg ggtgagcggc ccctgtgcat
60
cgcgagcagc ggtgatcaga taggcgatat ccgcctcggt cagttgcacg gtgtcggtat
120
cggtagccat gcgtggcgaa ctcccttggc atgggaaaat cgggtgaggg caacggggcac
180
agcaacagga cgtgtccctt gcggcacgtg gcaacacgtc agtatagcgc gtttccgccc
240
ggatttccgt tgaatgaagg caagaagtcg ggcacgcac cacctgctac cgctcggtgg
300
tacgatagcc gcggcgccac cagggttggt acattccaaa cgcaacgcag gaaccgcgat
360
gaacagcggt tttcgcaaca aacccttat gacgctgggt ctcgggcatt tcagtgtcga
420
c
421

```

&lt;210&gt; 648

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 648

```

Met Gly Lys Ser Gly Glu Ala Asn Gly His Ser Asn Arg Thr Cys Pro
1           5           10           15
Leu Arg His Val Ala Thr Arg Gln Tyr Ser Ala Phe Pro Pro Gly Phe
      20           25           30
Pro Leu Asn Glu Gly Lys Lys Ser Gly Thr His Pro Pro Ala Thr Ala
      35           40           45
Arg Trp Tyr Asp Ser Arg Gly Ala Thr Arg Leu Ala Thr Phe Gln Thr
      50           55           60
Gln Arg Arg Asn Pro His Glu Gln Arg Phe Ser Gln Gln Thr Pro Tyr
65           70           75           80
Asp Ala Gly Ser Arg Ala Phe Gln Cys Arg
      85           90

```



<210> 649  
 <211> 563  
 <212> DNA  
 <213> Homo sapiens

<400> 649  
 cgcaacatgc ataaacacat gtgctcctcc gagactcagc tacttccttt gccctctctg  
 60  
 gacctcagtg tccaggcttg tgcatttagg ggctcagggt tgggctctgt gcctatgagc  
 120  
 cagtctatgt gtgcactgtc tgtctgtctg tccgtctgcc agcaaccttc aaggccccag  
 180  
 gaggggaagg caccaatgga aggtgggggc agggaaggag gtagcgttga caagttccaa  
 240  
 tgtctggctt tccctcctgg aaacccccgag ctggggctgg ccccccttc cttcctgtc  
 300  
 tctctcgtc aagcacgtcc cttctaagag cccctctctg cagacgcccc cagtggaacc  
 360  
 aagcctagat tcgctgcaa gaaggccgac attttttaga cttgccacgt taaagggggc  
 420  
 tgcacaggca cgcactcaaa tccccccctc catgtcctcc gcctgtgcac attcaggcaa  
 480  
 cccgaaacac acaaagacac ggttggacac agcggccacc tgtgcacaca ggaggtagca  
 540  
 catggagcgc atctgacccc ggg  
 563

<210> 650  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 650  
 Met His Lys His Met Cys Ser Ser Glu Thr Gln Leu Leu Pro Leu Pro  
 1 5 10 15  
 Ser Leu Asp Leu Ser Val Gln Ala Cys Ala Phe Arg Gly Ser Gly Leu  
 20 25 30  
 Gly Ser Val Pro Met Ser Gln Ser Met Cys Ala Leu Ser Val Cys Leu  
 35 40 45  
 Ser Val Cys Gln Gln Pro Ser Arg Pro Gln Glu Gly Lys Ala Pro Met  
 50 55 60  
 Glu Gly Gly Gly Arg Glu Gly Gly Ser Val Asp Lys Phe Gln Cys Leu  
 65 70 75 80  
 Ala Phe Pro Pro Gly Asn Pro Glu Leu Gly Leu Ala Pro Pro Ser Leu  
 85 90 95  
 Pro Val Ser Leu Ala Gln Ala Arg Pro Phe  
 100 105

<210> 651  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 651

gaattcttca acaagctctc ctgctctagg atcaaggata gacctataca aggtccaaac  
60  
cataatggag tccatggggg caaagttatc tcctggagct cagcagttga tggatatggg  
120  
taggtgtcag cagcgggaatt gtattcccat tggagagcag cttcagtcgg tgttgggcaa  
180  
ttctggatac aagcatatga ttggactaca atcctcatct accttaggaa ccttaaacia  
240  
gtcgtcctcc acaccttttc cttttagaac tggattgaca tctgggaacg tgactgaaaa  
300  
cttacaagcg tacattgata aaagtacaca actgcctggg ggagagaatt c  
351

<210> 652

<211> 95

<212> PRT

<213> Homo sapiens

<400> 652

Met	Glu	Ser	Met	Gly	Ser	Lys	Leu	Ser	Pro	Gly	Ala	Gln	Gln	Leu	Met
1				5				10						15	
Asp	Met	Val	Arg	Cys	Gln	Gln	Arg	Asn	Cys	Ile	Pro	Ile	Gly	Glu	Gln
		20					25					30			
Leu	Gln	Ser	Val	Leu	Gly	Asn	Ser	Gly	Tyr	Lys	His	Met	Ile	Gly	Leu
		35				40					45				
Gln	Ser	Ser	Ser	Thr	Leu	Gly	Thr	Leu	Asn	Lys	Ser	Ser	Ser	Thr	Pro
	50				55				60						
Phe	Pro	Phe	Arg	Thr	Gly	Leu	Thr	Ser	Gly	Asn	Val	Thr	Glu	Asn	Leu
65			70					75						80	
Gln	Ala	Tyr	Ile	Asp	Lys	Ser	Thr	Gln	Leu	Pro	Gly	Gly	Glu	Asn	
			85					90						95	

<210> 653

<211> 399

<212> DNA

<213> Homo sapiens

<400> 653

nncccggtg gggctggggg ggggcccagca tcagaggagg acatgaccaa gctgtgcaac  
60  
caccggcgga aagctgttgc tatggcaact ctgtaccgca gcatggagac cacctgctca  
120  
cactcttctc ctggagaggg agcgagcccc caaatgttcc acactgtgtc cccagggccc  
180  
ccctctgccc gccctccctg tcgagttcct cctacaactc cacttaatgg gggctcctggc  
240  
tcccttcccc cagaaccacc ctcagtttcc caggccttcc ccactctagc aggccttggg  
300  
gggcttttcc ccccaaggct tgctgaccca gtcccttctg ggggcagtag cagcccccg  
360  
ttctcccaa ggggcaatgc cccctctcca gccccact  
399

<210> 654

<211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Xaa Pro Gly Gly Ala Gly Val Gly Pro Ala Ser Glu Glu Asp Met Thr  
   1                  5                  10                  15  
 Lys Leu Cys Asn His Arg Arg Lys Ala Val Ala Met Ala Thr Leu Tyr  
           20                  25                  30  
 Arg Ser Met Glu Thr Thr Cys Ser His Ser Ser Pro Gly Glu Gly Ala  
       35                  40                  45  
 Ser Pro Gln Met Phe His Thr Val Ser Pro Gly Pro Pro Ser Ala Arg  
       50                  55                  60  
 Pro Pro Cys Arg Val Pro Pro Thr Thr Pro Leu Asn Gly Gly Pro Gly  
 65                  70                  75                  80  
 Ser Leu Pro Pro Glu Pro Pro Ser Val Ser Gln Ala Phe Pro Thr Leu  
                   85                  90                  95  
 Ala Gly Pro Gly Gly Leu Phe Pro Pro Arg Leu Ala Asp Pro Val Pro  
           100                  105                  110  
 Ser Gly Gly Ser Ser Ser Pro Arg Phe Leu Pro Arg Gly Asn Ala Pro  
       115                  120                  125  
 Ser Pro Ala Pro Pro  
       130

<210> 655  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 655  
 tgaaggaaat tctctatggc ttgtgttcat catgtagaac agcccatgag gagaatagga  
 60  
 gatgaggtgg gaagtgcact gggatctggg ggaagaagcc cgggggttcaa gactcagcta  
 120  
 ctgactgcat ggtgtcaaag gattcgggca tcctctctga ggctgagtct tcagatgaca  
 180  
 gtgagaacag ggacacctgc cctgcccttc tcacggggcg tgtgggcacc catgagcatg  
 240  
 cttgacaaat gcaaggtgcc atacaaacag gaactgcaca atctcaccgc ccggcctact  
 300  
 cagcattggt atttttacct ttacatctat atgaagatgt agttccattc cttttaactg  
 360  
 ttgttttc  
 368

<210> 656  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 656  
 Met Ala Cys Val His His Val Glu Gln Pro Met Arg Arg Ile Gly Asp  
   1                  5                  10                  15  
 Glu Val Gly Ser Ala Leu Gly Ser Gly Gly Arg Ser Pro Gly Phe Lys

```

      20      25      30
Thr Gln Leu Leu Thr Ala Trp Cys Gln Arg Ile Arg Ala Ser Ser Leu
      35      40      45
Arg Leu Ser Leu Gln Met Thr Val Arg Thr Gly Thr Pro Ala Leu Pro
      50      55      60
Phe Ser Arg Gly Val Trp Ala Pro Met Ser Met Leu Asp Lys Cys Lys
      65      70      75      80
Val Pro Tyr Lys Gln Glu Leu His Asn Leu Thr Ala Arg Pro Thr Gln
      85      90      95
His Cys Tyr Phe Tyr Leu Tyr Ile Tyr Met Lys Met
      100      105

```

<210> 657  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

```

<400> 657
gtcgaccacg gcatgaaaaa gccggggatg atcctcatca acaaccctg gggcgagtcc
60
aacgaggcgg gcttcaagcg cgccctcgaa gagcgtggca tggccaacgc cgggtgctgag
120
cgtattcagg acagcgacct ggacgtgggt cgcgaattga ccccgctga aaaacgcggg
180
tgccgacacc ttgctgatgg tcggcaacgt cggcccttcg gcacaggtgg tcaagtcctt
240
ggaccgcatg gggtgggacg tgctgtggt gtctcactgg gggccggccg gnggtcgctt
300
tggcgagctg gcggggccta acgcttctcg
330

```

<210> 658  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

```

<400> 658
Met Lys Lys Pro Gly Met Ile Leu Ile Asn Asn Pro Trp Gly Glu Ser
1      5      10      15
Asn Glu Ala Gly Phe Lys Arg Ala Leu Glu Glu Arg Gly Met Ala Asn
20      25      30
Ala Gly Val Glu Arg Ile Gln Asp Ser Asp Leu Asp Val Val Pro Gln
35      40      45
Leu Thr Pro Pro Glu Lys Arg Arg Cys Arg His Leu Ala Asp Gly Arg
50      55      60
Gln Arg Arg Pro Phe Gly Thr Gly Gly Gln Val Pro Gly Pro His Gly
65      70      75      80
Leu Gly Arg Ala Cys Gly Val Ser Leu Gly Ala Gly Arg Xaa Ser Leu
85      90      95
Trp Arg Ala Gly Ala
100

```

<210> 659  
 <211> 1505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 659

gccaggatca tgtccaccac cacatgccaa gtgggtggcgt tcctcctgtc catcctgggg  
60  
ctggccggct gcacgcgggc caccgggatg gacatgtgga gcacccagga cctgtacgac  
120  
aaccctcgta cctccgtggt ccagtagcga gggctctgga ggagctgcgt gaggcagagt  
180  
tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag  
240  
gcagtgcgag ccctgatgat cgtaggcatc gtccctgggtg ccattggcct cctgggtatcc  
300  
atctttgccc tgaaatgcat ccgcattggc agcatggagg actctgcaa agccaacatg  
360  
acactgacct ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct  
420  
gtgtttgcca acatgctggg gactaacttc tggatgtcca cagctaacat gtacaccggc  
480  
atgggtggga tgggtgcagac tggtcagacc aggtacacat ttgggtgcggc tctgttcgtg  
540  
ggctgggtcg ctggaggcct cacactaatt gggggtgtga tgatgtgcat cgcctgccgg  
600  
ggcctggcac cagaagaaac caactacaaa gccgtttctt atcatgcctc aggccacagt  
660  
gttgccctaca agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac  
720  
aagaagatat acgatggagg tgcccgcaca gaggacgagg tacaatctta tccttccaag  
780  
cacgactatg tgtaatgctc taagacctct cagcacgggc ggaagaaact cccggagagc  
840  
tcacccaaaa aacaaggaga tcccatctag atttcttctt gcttttgact cacagctgga  
900  
agttagaaaa gcctcgattt catctttgga gaggccaagt ggtcttagcc tcagtctctg  
960  
tctctaaata ttccaccata aaacagctga gttatttatg aattagaagc tatagctcac  
1020  
attttcaatc ctctatttct ttttttaaataa actctgtatga gagaatgtgg  
1080  
ttttaatctc tctctcacat tttgatgatt tagacagact cccctcttc ctctagtca  
1140  
ataaaccat tgatgatcta tttcccagct tatccccaag aaaacttttg aaaggaaaga  
1200  
gtagacccaa agatgttatt ttctgctgtt tgaattttgt ctccccaccc ccaacttggc  
1260  
tagtaataaa cacttactga agaagaagca ataagagaaa gatatttgta atctctccag  
1320  
cccatgatct cggttttctt aactgtgat cttaaaagtt accaaaccaa agtcattttc  
1380  
agtttgaggc aaccaaactt ttctactgct gttgacatct tcttattaca gcaacaccat  
1440  
tctaggagtt tcctgagctc tccactggag tctccccctt ctgtcgtctt ctgcagcgg  
1500

taccc  
1505

<210> 660  
<211> 261  
<212> PRT  
<213> Homo sapiens

<400> 660  
Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile Leu  
1 5 10 15  
Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp Ser Thr  
20 25 30  
Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln Tyr Glu Gly  
35 40 45  
Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg  
50 55 60  
Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg  
65 70 75 80  
Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val  
85 90 95  
Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser  
100 105 110  
Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser  
115 120 125  
Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val  
130 135 140  
Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly  
145 150 155 160  
Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe  
165 170 175  
Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met  
180 185 190  
Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala  
195 200 205  
Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly  
210 215 220  
Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile  
225 230 235 240  
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro Ser  
245 250 255  
Lys His Asp Tyr Val  
260

<210> 661  
<211> 451  
<212> DNA  
<213> Homo sapiens

<400> 661  
nnacgcgtgt agtttctgta tcggcgcgga actcgccgcg tctgatctcg aggagcttcc  
60  
cccatggacg agattttaac cttgcttgcc ggaggcggtg acgacgagcc agagtggcat  
120

gacaaggcat tatgtgcca gactgatccg gaggcattct tccctgaaaa gggtagatcc  
 180  
 acccgtgagg ccaagcgcac ctgtgagtc tgtgaggtcc gccaggagtg cttggagtag  
 240  
 gcccttgcca atgacgagag gtccggaatc tggggcggat tgtccgagat ggagaggcgt  
 300  
 cggctgcca agcgggcgtg acctgacgtc ggagcgcgtt tattgacacg gcccggtaaa  
 360  
 atgccctgtc tgcccgggat ggctgtctgc acgatgcggc atatgcatg atcgagacg  
 420  
 tgggtgcat cccgtgctcc atgacgtcga c  
 451

<210> 662

<211> 85

<212> PRT

<213> Homo sapiens

<400> 662

Met	Asp	Glu	Ile	Leu	Thr	Leu	Leu	Ala	Gly	Gly	Gly	Asp	Asp	Glu	Pro
1				5					10					15	
Glu	Trp	His	Asp	Lys	Ala	Leu	Cys	Ala	Gln	Thr	Asp	Pro	Glu	Ala	Phe
			20					25					30		
Phe	Pro	Glu	Lys	Gly	Gly	Ser	Thr	Arg	Glu	Ala	Lys	Arg	Ile	Cys	Glu
		35				40					45				
Ser	Cys	Glu	Val	Arg	Gln	Glu	Cys	Leu	Glu	Tyr	Ala	Leu	Ala	Asn	Asp
	50					55				60					
Glu	Arg	Phe	Gly	Ile	Trp	Gly	Gly	Leu	Ser	Glu	Met	Glu	Arg	Arg	Arg
65					70				75					80	
Leu	Arg	Lys	Arg	Ala											
				85											

<210> 663

<211> 552

<212> DNA

<213> Homo sapiens

<400> 663

ctcgagcgtc tcgacgccga cgccgccag ggagccaagg aagacctctc gcagcgcgac  
 60  
 ccctacgacg tgctcgtcgt aggggcgggt cccgccggtg ccgcggccgc cgtgtacgcg  
 120  
 gctcgtaagg gcattcgcac cgccatggtc gggctctcga tcggcggcca ggtactcgat  
 180  
 accgaggcca tcgacaacct catctcgggt ccgcacacca ccggtccgag tctggccgac  
 240  
 gccctccgca gccacgtcaa cgactacaac attgacgtta ttgagcgtca gaccgccagc  
 300  
 gccatagaga ccaccggcgg tatgaccacc gtgcatctga ccgacggcga cctgcgggcg  
 360  
 cgctcagtca tcgtggccac cgggtgccgc tggcgcaacc ttggcgtacc tggcgaggag  
 420  
 gaataccgca ccaaggggtg gacctactgc ccgactgcg atggcccgtt attcacaggc  
 480

aaaaaggtgg ccgtcgtcgg aggtggaaac tccggtattg aggccgctat cgacctcgcc  
 540  
 ggcgtcgtcg ac  
 552

<210> 664  
 <211> 184  
 <212> PRT  
 <213> Homo sapiens

<400> 664  
 Leu Glu Arg Leu Asp Ala Asp Ala Ala Gln Gly Ala Lys Glu Asp Leu  
 1 5 10 15  
 Ser Gln Arg Asp Pro Tyr Asp Val Leu Val Val Gly Ala Gly Pro Ala  
 20 25 30  
 Gly Ala Ala Ala Val Tyr Ala Ala Arg Lys Gly Ile Arg Thr Ala  
 35 40 45  
 Met Val Gly Ser Arg Ile Gly Gly Gln Val Leu Asp Thr Glu Ala Ile  
 50 55 60  
 Asp Asn Leu Ile Ser Val Pro His Thr Thr Gly Pro Arg Leu Ala Asp  
 65 70 75 80  
 Ala Leu Arg Ser His Val Asn Asp Tyr Asn Ile Asp Val Ile Glu Arg  
 85 90 95  
 Gln Thr Ala Ser Ala Ile Glu Thr Thr Gly Gly Met Thr Thr Val His  
 100 105 110  
 Leu Thr Asp Gly Asp Leu Arg Ala Arg Ser Val Ile Val Ala Thr Gly  
 115 120 125  
 Ala Arg Trp Arg Asn Leu Gly Val Pro Gly Glu Glu Glu Tyr Arg Thr  
 130 135 140  
 Lys Gly Val Thr Tyr Cys Pro His Cys Asp Gly Pro Leu Phe Thr Gly  
 145 150 155 160  
 Lys Lys Val Ala Val Val Gly Gly Gly Asn Ser Gly Ile Glu Ala Ala  
 165 170 175  
 Ile Asp Leu Ala Gly Val Val Asp  
 180

<210> 665  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 665  
 acgcgtacag ttcgccgtcg aggttgaaca ccacgatcgg tgtaccgggtc acttcgtcga  
 60  
 acacgtctctt catctcgccc ggcagcagtt cggcgccggc gcagacaaag gtccaggcct  
 120  
 cgctcacgcg gtggccccgg ccagcggctt ttccaggatc tcgaaacgca ggtcgtcgcg  
 180  
 cttgggggatg ccgaatcggt cgtcgccata cgggaacggc ttcttgatgc cggtgcgcg  
 240  
 gtagccgcgg cgctcgtaga agcgatcaga tcgcgcgcac gtcgatcact gtcattctga  
 300  
 ttaccggcac gttccattcg cgcgcggcgt gggcttcggc ggcgtccatc aa  
 352



<210> 666  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Met Glu Arg Ala Gly Asn Ala Asp Asp Ser Asp Arg Arg Ala Arg Asp  
 1 5 10 15  
 Leu Ile Ala Ser Thr Ser Ala Ala Ala Thr Cys Ala Pro Ala Ser Arg  
 20 25 30  
 Ser Arg Ser Arg Met Ala Thr Asn Asp Ser Ala Ser Pro Ser Ala Thr  
 35 40 45  
 Thr Cys Val Ser Arg Ser Trp Lys Ser Arg Trp Pro Gly Pro Pro Arg  
 50 55 60  
 Glu Arg Gly Leu Asp Leu Cys Leu Arg Arg Arg Arg Thr Ala Ala Gly  
 65 70 75 80  
 Arg Asn Glu Glu Arg Val Arg Arg Ser Asp Arg Tyr Thr Asp Arg Gly  
 85 90 95  
 Val Gln Pro Arg Arg Arg Thr Val Arg  
 100 105

<210> 667  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 667  
 nacgcgtacg aatcggtggt gcgtcgcaac ccaggggagg ccgagttcca ccaggctgtg  
 60  
 cgggagatct ttgaatctct cggcccgggtg ctcgacaaga atccgcagta cgtggaggca  
 120  
 gccgtgttgt cgcgcatctg cgaaccggaa cgccagatca ttttccgggt gccgtgggtt  
 180  
 gacgacgagg gcaagatccg tatcaaccgt ggcttccgcg ttgaatattc gtcggtactg  
 240  
 gggccgtata aggggtggatt gcgattccac ccctcggtgt acttaggaac gattaagttc  
 300  
 cttggttttg agcagatctt caaaaatgct ctgactggca tgccgatcgg tggcgcaag  
 360  
 ggtgggtcgg actttgatcc ccatgacgcg t  
 391

<210> 668  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 668  
 Xaa Ala Tyr Glu Ser Val Leu Arg Arg Asn Pro Gly Glu Ala Glu Phe  
 1 5 10 15  
 His Gln Ala Val Arg Glu Ile Phe Glu Ser Leu Gly Pro Val Leu Asp  
 20 25 30  
 Lys Asn Pro Gln Tyr Val Glu Ala Ala Val Leu Ser Arg Ile Cys Glu

```

      35              40              45
Pro Glu Arg Gln Ile Ile Phe Arg Val Pro Trp Val Asp Asp Glu Gly
      50              55              60
Lys Ile Arg Ile Asn Arg Gly Phe Arg Val Glu Tyr Ser Ser Val Leu
65              70              75              80
Gly Pro Tyr Lys Gly Gly Leu Arg Phe His Pro Ser Val Tyr Leu Gly
      85              90              95
Thr Ile Lys Phe Leu Gly Phe Glu Gln Ile Phe Lys Asn Ala Leu Thr
      100              105              110
Gly Met Pro Ile Gly Gly Ala Lys Gly Gly Ser Asp Phe Asp Pro His
      115              120              125
Asp Ala
      130

```

<210> 669  
 <211> 707  
 <212> DNA  
 <213> Homo sapiens

```

<400> 669
nngagtcctg tccccgtcta agctcatcgt ggtggtgctg gcatggccgt caacaagga
60
attgagaaca cccttgctgc cttcgccac gcggtcgagg tgggatgcac ctaccttgaa
120
actgacgttc acgcgaccag cgacggggtg ctagtggcct tccacgatcc gatactcgat
180
cgcgtcactg aatcaggcgg agtcacgcc gccatgccgt ggcacaaggt caaacaagcc
240
aagggttggtg gcgaaccgat cccacctta gatgagattt tcgacgcctt tcccgcgcg
300
ttcatcaata tcgacatcaa gcatgatggc gccaccatgc cgctcatcga cgttctttcc
360
cgtcacccgg cttggagtcg ggtttgctgc gggtcgttca gcagtaaagc catccagacc
420
ttccgtcgcc tgggttcagg acgcactgcg actgcagtgg ggtcggtggg agtcnnggt
480
gggctgtcat cagccctcat agcatgcaga tggcacagtc ccatgggaat gcgtaccagg
540
tgccgcaccg cttgaccggg tnatggggtg ccccttgatga caccgacctt cattaaagct
600
gcccacgtc aggggcgagc tgttcacgtc tggacgggta atgagatctc tgaggctcga
660
gaactgatgg atatgggggt cgacggcatc gtcacagatc gtccgga
707

```

<210> 670  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

```

<400> 670
Met Ala Val Asn Lys Gly Ile Glu Asn Thr Leu Ala Ala Phe Gly His
1              5              10              15
Ala Val Glu Val Gly Cys Thr Tyr Leu Glu Thr Asp Val His Ala Thr

```

```

                20                25                30
Ser Asp Gly Val Leu Val Ala Phe His Asp Pro Ile Leu Asp Arg Val
      35                40                45
Thr Glu Ser Gly Gly Val Ile Ala Ala Met Pro Trp His Lys Val Lys
      50                55                60
Gln Ala Lys Val Gly Gly Glu Pro Ile Pro Thr Leu Asp Glu Ile Phe
65      70                75                80
Asp Ala Phe Pro Asp Ala Phe Ile Asn Ile Asp Ile Lys His Asp Gly
      85                90                95
Ala Thr Met Pro Leu Ile Asp Val Leu Ser Arg His Arg Ala Trp Ser
      100                105                110
Arg Val Cys Val Gly Ser Phe Ser Ser Lys Arg Ile Gln Thr Phe Arg
      115                120                125
Arg Leu Val Gln Gly Arg Thr Ala Thr Ala Val Gly Ser Val Gly Val
      130                135                140
Xaa Ala Gly Leu Ser Ser Ala Leu Ile Ala Cys Arg Trp His Ser Pro
145      150                155                160
Met Gly Met Arg Thr Arg Cys Arg Thr Ala
      165                170

```

&lt;210&gt; 671

&lt;211&gt; 444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 671

```

acgcgtgggc ctcggggttg atgggatcag aaggggacgg gacctgtaga aaggggcctg
60
cagctcagag catggggcgg ccttggtcga ctacgcctgc agctgtgaat tcgttctccg
120
gtgctggaga gggatctggt tatctccatt ctcttgtctc cacgtggaaa ggaaggacgt
180
gcgctctcat cctacgtggt ttgagaaatc gcattgtccc cagctctgcg ggaggatctg
240
gggacgcagt ggggaaccag acaggcagtt ggaggtctag tgcgcgccag aagccagttc
300
ccacccaggg tgccatttgc tgggcgcctt agggagctgc gtgggcatcc agaggagtga
360
gtcgcacctt gctctgtcga gtgccactt ccccgggcag ggcaggcggt attaacgtag
420
agggagaaca cccatgcaca caac
444

```

&lt;210&gt; 672

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 672

```

Met Gly Ser Glu Gly Asp Gly Thr Cys Arg Lys Gly Pro Ala Ala Gln
  1                5                10                15
Ser Met Gly Arg Pro Trp Leu Thr Thr Pro Ala Ala Val Asn Ser Phe
      20                25                30
Ser Gly Ala Gly Glu Gly Ser Gly Tyr Leu His Ser Leu Val Ser Thr

```

35 40 45  
 Trp Lys Gly Arg Thr Cys Ala Leu Ile Leu Arg Val Leu Arg Asn Arg  
 50 55 60  
 Ile Val Pro Ser Ser Ala Gly Gly Ser Gly Asp Ala Val Gly Asn Gln  
 65 70 75 80  
 Thr Gly Ser Trp Arg Ser Ser Ala Arg Gln Lys Pro Val Pro Thr Gln  
 85 90 95  
 Gly Ala Ile Cys Trp Ala Pro  
 100

<210> 673  
 <211> 452  
 <212> DNA  
 <213> Homo sapiens

<400> 673  
 acgcgtccct gcagaaatcc tctcggccta ggtcatccgc aagatgtggc agggcatgca  
 60  
 ccgtgaaagc cttcaagtct gccgcagcaa gaccgcacgc ctgctgaaat tcgcagttgt  
 120  
 gccgcggtcc ctgatgcgga caaactcggc caccacgatc agcctgacgc ttgcggacca  
 180  
 acgttcaaact actgtgcact tgaaacgtcc gggccgcacac acctgggtga ctttgtgcga  
 240  
 ccgacattac ttatgttcac gctctttcag ttcttgtcaa taccgtattt ttcgtcgacg  
 300  
 tctccatcag aaaaatgtcg gtgttaccgc accgcagacg atgcgtaccc ttgcgctgac  
 360  
 gatggaggcc ttgaaaagtg cattagccac tactggggcga atctacggca aaaagctgtt  
 420  
 actaggcggt gattggggag gcccgtagtg gc  
 452

<210> 674  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 674  
 Met Trp Gln Gly Met His Arg Glu Ser Leu Gln Val Cys Arg Ser Lys  
 1 5 10 15  
 Thr Ala Arg Leu Leu Lys Phe Ala Val Val Pro Arg Ser Leu Met Arg  
 20 25 30  
 Thr Asn Ser Ala Thr Thr Ile Ser Leu Thr Leu Ala Asp Gln Arg Ser  
 35 40 45  
 Asn Thr Val His Leu Lys Arg Pro Gly Arg Ile Thr Trp Val Thr Leu  
 50 55 60  
 Cys Asp Arg His Tyr Leu Cys Ser Arg Ser Phe Ser Ser Cys Gln Tyr  
 65 70 75 80  
 Arg Ile Phe Arg Arg Arg Leu His Gln Lys Asn Val Gly Val Thr Ala  
 85 90 95  
 Pro Gln Thr Met Arg Thr Leu Ala Leu Thr Met Glu Ala Leu Lys Ser  
 100 105 110  
 Ala Leu Ala Thr Thr Gly Arg Ile Tyr Gly Lys Lys Leu Leu Leu Gly

115  
Gly Asp Trp Gly Gly Pro  
130

120

125

<210> 675  
<211> 8564  
<212> DNA  
<213> Homo sapiens

<400> 675  
atgtcgggct ccacacagct tgtggcacag acgtggaggg ccactgagcc ccgctacccg  
60  
ccccacagcc ttctctaccc agtgcagatc gcccggacgc acacggacgt cgggctcctg  
120  
gagtaccagc accactcccg cgactatgcc tcccacctgt cgccggggctc catcatccag  
180  
ccccagcggc ggaggccctc cctgctgtct gagttccagc ccgggaatga acgggtcccag  
240  
gagctccacc tgcggccaga gtcccaactca tacctgcccg agctggggaa gtcagagatg  
300  
gagttcattg aaagcaagcg ccctcggcta gagctgctgc ctgacccctt gctgcgaccg  
360  
tcacccttgc tggccacggg ccagcctgcg ggatctgaag acctcaccaa ggaccgtagc  
420  
ctgacgggca agctggaacc ggtgtctccc ccagccccc cgcacactga ccctgagctg  
480  
gagctggtgc cgccacggct gtccaaggag gagctgatcc agaacatgga ccgcgtggac  
540  
cgagagatca ccatggtaga gcagcagatc tctaagctga agaagaagca gcaacagctg  
600  
gaggaggagg ctgccaagcc gcccgagcct gagaagcccg tgtcaccgcc gcccatcgag  
660  
tcgaagcacc gcagcctggt gcagatcatc tacgacgaga accggaagaa ggctgaagct  
720  
gcacatcgga ttctggaagg cctggggccc caggtggagc tgccgctgta caaccagccc  
780  
tcgcacaccc ggcagtatca tgagaacatc aaaataaacc aggcgatgcg gaagaagcta  
840  
atcttgact tcaagaggag gaatcacgct cggaacaat gggagcagaa gttctgccag  
900  
cgctatgacc agctcatgga ggcctgggaa aaaaagggtg agcgcatcga gaacaacccc  
960  
cggcggcggg ccaaggagag caaggtgctc gagtactacg aaaagcagtt ccctgagatc  
1020  
cgcaagcagc gcgagctgca ggagcgcagc cagggcaggg tgggccagcg ggcagtgagg  
1080  
ctgtccatgt cggccgcccg cagcagcac gaggtgtcag agatcatcga tggcctctca  
1140  
gagcaggaga acctggagaa gcagatgcgc cagctggccg tgatcccgc catgctgtac  
1200  
gacgctgacc agcagcgcag caagttcatc aacatgaacg ggcttatggc cgaccccatg  
1260  
aagggtgtaca aagaccgcca ggtcatgaac atgtggagtg agcaggagaa ggagaccttc  
1320

cgggagaagt tcatgcagca tcccaagaac tttggcctga tcgcatcatt cctggagagg  
1380  
aagacagtgg ctgagtgcgt cctctattac tacctgacta agaagaatga gaactataag  
1440  
agcctgggtga gacggagcta tcggcgccgc ggcaagagcc agcagcagca acaacagcag  
1500  
cagcagcagc agcagcagca gcagcagcag cagcccatgc cccgcagcag ccaggaggag  
1560  
aaagatgaga aggagaagga aaaggaggcg gagaaggagg aggagaagcc ggaggtggag  
1620  
aacgacaagg aagacctcct caaggagaag acagacgaca cctcagggga ggacaacgac  
1680  
gagaaggagg ctgtggcctc caaaggccgc aaaactgcca acagccaggg aagacgcaa  
1740  
ggccgcatca cccgctcaat ggctaataag gccaacagcg aggaggccat caccctccag  
1800  
cagagcgccg agctggcctc catggagctg aatgagagtt ctgctggac agaagaaga  
1860  
atggaaacag ccaagaaagg tctcctggaa cacggccgca actggtcggc catcgcccg  
1920  
atggtgggct ccaagactgt gtcgcagtgt aagaacttct acttcaacta caagaagg  
1980  
cagaacctcg atgagatctt gcagcagcac aagctgaaga tggagaagga gaggaacgcg  
2040  
cggaggaaga agaagaaagc gccggcgccg gccagcgagg aggtgcatt cccgcccgtg  
2100  
gtggaggatg aggagatgga ggcgtcgggc gtgagcgga atgaggagga gatggtggag  
2160  
gaggctgaag ccttacatgc ctctgggaat gaggtgccca gaggggaatg cagtggccca  
2220  
gccactgtca acaacagctc agacaccgag agcatcccc ctctcacac ggaggccgcc  
2280  
aaggacacag ggcagaatgg gcccaagccc ccagccaccc tggcgccga cgggccaccc  
2340  
ccaggccccc ccacccccc acggaggaca tcccgggccc ccattgagcc caccgccgcc  
2400  
tctgaagcca ccggagcccc tacgccccca ccagcaccce catcgccctc tgcacctct  
2460  
cctgtggtcc ccaaggagga gaaggaggag gagaccgag cagcgccccc agtggaggag  
2520  
ggggaggagc agaagcccc cgcggtgag gagctggcag tggacacagg gaaggccgag  
2580  
gagcccgta agagcgagtg cacggaggaa gccgaggagg ggccggccaa gggcaaggac  
2640  
gcggaggccg ctgaggccac ggccgagggg gcgctcaagg cagagaagaa ggagggcggg  
2700  
agcggcaggg ccaccactgc caagagctcg ggcgcccccc aggacagcga ctccagtgt  
2760  
acctgcagtg cagacgaggt ggatgaggcc gagggcgccg acaagaaccg gctgctgtcc  
2820  
ccaaggccca gcctctcac cccgactggc gacccccggg ccaatgcctc accccagaag  
2880  
ccactggacc tgaagcagct gaagcagcga gcggctgcca tccccccat ccaggtcacc  
2940

aaagtccatg agcccccccg ggaggacgca gctcccacca agccagctcc cccagcccca  
3000  
ccgccaccgc aaaacctgca gccggagagc gacgcccctc agcagcctgg cagcagcccc  
3060  
cggggcaaga gcaggagccc ggcaccccccc gccgacaagg aggccttcgc agccgaggcc  
3120  
cagaagctgc ctggggaccc cccttgctgg acttccggcc tgcccttccc cgtgcccccc  
3180  
cgtgaggtga tcaaggcctc cccgcatgcc ccggaccctt cagccttctc ctacgctcca  
3240  
cctggtcacc cactgcccct gggcctccat gacactgccc ggcccgtcct gccgcgcccc  
3300  
cccaccatct ccaaccgcgc tccccctatc tcctctgcca agcaccccag cgtcctcgag  
3360  
aggcaaatag gtgccatctc ccaaggaatg tgggtccagc tccacgtccc gtactcagag  
3420  
catgccaaagg ccccggtggg ccctgtcacc atggggctgc ccctgcccac ggacccccaa  
3480  
aagctggcac ccttcagcgg agtgaagcag gagcagctgt cccacggggg ccaggctggg  
3540  
ccaccggaga gcctgggggt gccacagcc caggaggcgt ccgtgctgag agggacagct  
3600  
ctgggctcag ttccgggcgg aagcatcacc aaaggcattc ccagcacacg ggtgccctcg  
3660  
gacagcgcca tcacataccg cggctccatc acccacggca cgccagctga cgtcctgtac  
3720  
aagggcacca tcaccaggat catcggcgag gacagcccga gtcgcttggg ccgcggccgg  
3780  
gaggacagcc tgcccaaggg ccacgtcatc tacgaaggca agaaggggcca cgtcttgtcc  
3840  
tatgagggtg gcatgtctgt gaccagtg cccaaggagg acggcagaag cagctcagga  
3900  
cccccccatg agacggccgc cccaagcgc acctatgaca tgatggaggg ccgcgtgggc  
3960  
agagccatct cctcagccag catcgaagg tcatggggc gtgccatccc gccggagcga  
4020  
cacagcccc accacctcaa agagcagcac cacatccgcg ggtccatcac acaagggatc  
4080  
cctcggtcct acgtggaggc acaggaggac tacctgcgtc gggaggccaa gtccttaaag  
4140  
cgggagggca cgcctccgcc cccaccgccc tcacgggacc tgaccgaggc ctacaagacg  
4200  
caggccctgg gccccctgaa gctgaagccg gcccatgagg gcctggtggc cagggtgaag  
4260  
gaggcggggc gctccatcca tgagatcccg cgcgaggagc tgcggcacac gcccgagctg  
4320  
cccctggccc cgcggccgct caaggagggc tccatcacgc agggcacccc gctcaagtac  
4380  
gacaccggcg cgtccaccac tggtccaaa aagcacgacg tacgctcctt catcggcagc  
4440  
cccggccgga cgttcccacc cgtgcacccg ctggatgtga tggccgacgc ccgggcactg  
4500  
gaacgtgcct gctacgagga gagcctgaag agccggccag ggaccgccag cagctcgggg  
4560

ggctccattg cgcgcggcgc cccggtcatt gtgcctgagc tgggtaagcc gcggcagagc  
4620  
cccctaacct atgaggacca cggggcaccc ttgtccggcc acctcccacg aggttcgccc  
4680  
gtgaccacgc gggagcccac gccgcgcctg caggagggca gcctttcgtc cagcaaggca  
4740  
tcccaggacc gaaagctgac gtcgacgcct cgtgagatcg ccaagtcccc gcacagcacc  
4800  
gtgcccagagc accaccacaca ccccatctcg ccctatgagc acctgcttcg gggcgtgagt  
4860  
ggcgtggacc tgtatcgag ccacatcccc ctggccttcg accccacctc cataccccgc  
4920  
ggcatccctc tggacgcagc cgtgcctac tacctgcccc gacacctggc ccccaacccc  
4980  
acctacccgc acctgtaccc acctacctc atccgcggct accccgacac ggcggcgtg  
5040  
gagaaccggc agaccatcat caatgactac atcacctcgc agcagatgca ccacaacacg  
5100  
gccaccgcca tggcccagcg agctgatatg ctgagggggc tctcgccccg cgagtccctg  
5160  
ctggcactca actacgctgc gggccccga ggcacatcg acctgtccca agtgccacac  
5220  
ctgcctgtgc tcgtgcccc gacaccaggc accccagcca ccgccatgga ccgccttgcc  
5280  
tacctcccca ccgcgcccc gcccctcagc agccgccaca gcagctcccc actctcccca  
5340  
ggaggtccaa cacacttgac aaaaccaacc accacgtcct cgtccgagcg ggagcgagac  
5400  
cgggatcgag agcgggaccg ggatcgggag cgggaaaagt ccacctcac gtccaccacg  
5460  
acggtggagc acgcacccat ctggagacct ggtacagagc agagcagcgg cagcagcggc  
5520  
agcagcggcg ggggtggggg cagcagcagc cgccccgcct cccactccca tgcccaccag  
5580  
cactcgccca tctcccctcg gaccaggat gccctccagc agagaccagc tgtgcttcac  
5640  
aacacaggca tgaagggat catcacgct gtggagccca gcacgcccac ggtcctgagg  
5700  
tccacctcca cctcctcac cgttcgcccc gctgccacat tccacctgc caccactgc  
5760  
ccactgggcg gcacctcga tgggggtctac cctacctca tggagcccg cttgctgccc  
5820  
aaggaggccc cccgggtcgc cgggccagag cggccccgag cagacaccgg ccatgccttc  
5880  
ctcgccaagc cccagcccc ctccgggctg gagccgcct cctccccag caagggtcg  
5940  
gagccccggc ccctagtgc tcctgtctt ggccacgcca ccacgcccc caccctgcg  
6000  
aagaacctcg cacctcacca cgccagcccc gaccgcggcg cgccacctgc ctggcctcg  
6060  
gaccgcacc gggaaaagac tcaaagtaaa cccttttcca tccaggaact ggaactccgt  
6120  
tctctgggtt accacggcag cagctacagc cccgaagggg tggagcccg cagccctgtg  
6180



agctcaccca gtctgacca cgacaagggg ctccccaagc acctggaaga gctcgacaag  
6240  
agccacctgg agggggagct gcggcccaag cagccaggcc ccgtgaagct tggcggggag  
6300  
gccgccacc tcccacacct gcggccgctg cctgagagcc agccctcgtc cagcccgtg  
6360  
ctccagaccg cccaggggt caaagggtcac cagcgggtgg tcacctggc ccagcacatc  
6420  
agtgaggtca tcacacagga ctacaccgg caccaccac agcagctcag cgcaccctg  
6480  
ccgcccccc tetactcctt ccctggggcc agctgccccg tcttggaact ccgcccacca  
6540  
cccagtgacc tctacctccc gccccggac catggtgccc cggcccgtgg cccccccac  
6600  
agcgaagggg gcaagaggtc tccagagcca aacaagacgt cggctcttggg tgggtggtgag  
6660  
gacggtattg aacctgtgtc cccaccggag ggcatgacgg agccagggca ctcccggagt  
6720  
gctgtgtacc cgctgctgta ccgggatggg gaacagacgg agcccagcag gatgggctcc  
6780  
aagtctccag gcaacaccag ccagccgcca gccttcttca gcaagctgac cgagagcaac  
6840  
tccgccatgg tcaagtccaa gaagcaagag atcaacaaga agctgaacac ccacaaccgg  
6900  
aatgagcctg aatacaatat cagccagcct gggacggaga tcttcaatat gcccgccatc  
6960  
accggaacag gccttatgac ctatagaagc caggcgggtgc aggaacatgc cagcaccaac  
7020  
atggggctgg agggcataat tagaaaggca ctcatgggta aatatgacca gtgggaagag  
7080  
tccccgccgc tcagcgccaa tgcttttaac cctctgaatg ccagtgccag cctgcccgt  
7140  
gctatgcca taaccgctgc tgacggacgg agtgaccaca cactcacctc gccagggtggc  
7200  
ggcgggaagg ccaaggcttc tggcagaccc agcagccgaa aagccaagtc cccggccccg  
7260  
ggcctggcat ctggggaccg gccaccctct gtctcctcag tgcactcgga gggagactgc  
7320  
aaccgcccga cgcgcgtcac caaccgctg tgggaggaca ggccctcgtc cgcaggttcc  
7380  
acgccattcc cctacaaccc cctgatcatg cggctgcagg cgggtgtcat ggcttcccc  
7440  
ccccaccgg gcctccccgc gggcagcggg cccctcgtg gccccacca cgctgggac  
7500  
gaggagccca agccactgct ctgctcgag tacgagacac tctccgacag cgagtgactc  
7560  
agaacagggc gggggggggc gggcgggtgt aggtcccagc gagccacagg aacggccctg  
7620  
caggagcggg gcggctgccg actccccaa ccaaggaagg agccctgag tccgctgcg  
7680  
cctccatcca tctgtccgtc cagagcggc atccttgct gtctaaagcc ttaactaaga  
7740  
ctccgcccc gggctggccc tgtgcagacc ttactcaggg gatgtttacc tgggtgctcg  
7800

gaagggaggg gaaggggccc gggagggggc acggcaggcg tgtggcagcc acacacaggc  
 7860  
 ggccagggcg gccagggacc caaagcagga tgaccacgca cctccacgcc actgcctccc  
 7920  
 ccgaatgcat ttggaaccaa agtctaaact gagctcgag cccccgcgc ctcctccgc  
 7980  
 ctcccatccc gcttagcgct ctggacagat ggacgcaggc cctgtccagc cccagtgcg  
 8040  
 ctggttctgg tccccacaga ctgccccagc caacgagatt gctggaaacc aagtcaggcc  
 8100  
 aggtgggagg acaaaagggc caggtgcggc ctggggggaa cggatgctcc gaggactgga  
 8160  
 ctgttttttt cacacatcgt tgccgcagcg gtgggaagga aaggcagatg taaatgatgt  
 8220  
 gttggtttac aggggtatatt ttgatacct tcaatgaatt aattcagatg ttttacgcaa  
 8280  
 ggaaggactt acccagtatt actgctgctg tgcttttgat ctctgcttac cgttcaagag  
 8340  
 gcgtgtgcag gccgacagtc ggtgacccca tcaactcgag gaccaagggg gcggggactg  
 8400  
 ctggctcagc ccccgctgtg tcctcctccc ctccttccc tgggcagaat gaattcgatg  
 8460  
 cgtattctgt ggccgccatt tgccgagggt ggtggtattc tgtcatttac acacgtcgtt  
 8520  
 ctaattaaaa agcgaattat actccaaaaa aaaaaaaaaa aaaa  
 8564

&lt;210&gt; 676

&lt;211&gt; 2518

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 676

Met	Ser	Gly	Ser	Thr	Gln	Leu	Val	Ala	Gln	Thr	Trp	Arg	Ala	Thr	Glu
1				5					10					15	
Pro	Arg	Tyr	Pro	Pro	His	Ser	Leu	Ser	Tyr	Pro	Val	Gln	Ile	Ala	Arg
			20					25					30		
Thr	His	Thr	Asp	Val	Gly	Leu	Leu	Glu	Tyr	Gln	His	His	Ser	Arg	Asp
		35					40					45			
Tyr	Ala	Ser	His	Leu	Ser	Pro	Gly	Ser	Ile	Ile	Gln	Pro	Gln	Arg	Arg
	50					55					60				
Arg	Pro	Ser	Leu	Leu	Ser	Glu	Phe	Gln	Pro	Gly	Asn	Glu	Arg	Ser	Gln
65					70					75				80	
Glu	Leu	His	Leu	Arg	Pro	Glu	Ser	His	Ser	Tyr	Leu	Pro	Glu	Leu	Gly
				85					90					95	
Lys	Ser	Glu	Met	Glu	Phe	Ile	Glu	Ser	Lys	Arg	Pro	Arg	Leu	Glu	Leu
			100						105				110		
Leu	Pro	Asp	Pro	Leu	Leu	Arg	Pro	Ser	Pro	Leu	Leu	Ala	Thr	Gly	Gln
		115				120						125			
Pro	Ala	Gly	Ser	Glu	Asp	Leu	Thr	Lys	Asp	Arg	Ser	Leu	Thr	Gly	Lys
		130				135					140				
Leu	Glu	Pro	Val	Ser	Pro	Pro	Ser	Pro	Pro	His	Thr	Asp	Pro	Glu	Leu
145					150					155				160	
Glu	Leu	Val	Pro	Pro	Arg	Leu	Ser	Lys	Glu	Glu	Leu	Ile	Gln	Asn	Met

												165				170				175			
Asp	Arg	Val	Asp	Arg	Glu	Ile	Thr	Met	Val	Glu	Gln	Gln	Ile	Ser	Lys								
			180				185						190										
Leu	Lys	Lys	Lys	Gln	Gln	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Lys	Pro	Pro								
			195				200						205										
Glu	Pro	Glu	Lys	Pro	Val	Ser	Pro	Pro	Pro	Ile	Glu	Ser	Lys	His	Arg								
			210				215						220										
Ser	Leu	Val	Gln	Ile	Ile	Tyr	Asp	Glu	Asn	Arg	Lys	Lys	Ala	Glu	Ala								
225				230			235						240										
Ala	His	Arg	Ile	Leu	Glu	Gly	Leu	Gly	Pro	Gln	Val	Glu	Leu	Pro	Leu								
			245			250						255											
Tyr	Asn	Gln	Pro	Ser	Asp	Thr	Arg	Gln	Tyr	His	Glu	Asn	Ile	Lys	Ile								
			260			265						270											
Asn	Gln	Ala	Met	Arg	Lys	Lys	Leu	Ile	Leu	Tyr	Phe	Lys	Arg	Arg	Asn								
			275			280						285											
His	Ala	Arg	Lys	Gln	Trp	Glu	Gln	Lys	Phe	Cys	Gln	Arg	Tyr	Asp	Gln								
			290			295						300											
Leu	Met	Glu	Ala	Trp	Glu	Lys	Lys	Val	Glu	Arg	Ile	Glu	Asn	Asn	Pro								
305				310			315						320										
Arg	Arg	Arg	Ala	Lys	Glu	Ser	Lys	Val	Arg	Glu	Tyr	Tyr	Glu	Lys	Gln								
			325			330						335											
Phe	Pro	Glu	Ile	Arg	Lys	Gln	Arg	Glu	Leu	Gln	Glu	Arg	Met	Gln	Gly								
			340			345						350											
Arg	Val	Gly	Gln	Arg	Gly	Ser	Gly	Leu	Ser	Met	Ser	Ala	Ala	Arg	Ser								
			355			360						365											
Glu	His	Glu	Val	Ser	Glu	Ile	Asp	Gly	Leu	Ser	Glu	Gln	Glu	Asn									
			370			375						380											
Leu	Glu	Lys	Gln	Met	Arg	Gln	Leu	Ala	Val	Ile	Pro	Pro	Met	Leu	Tyr								
385				390			395						400										
Asp	Ala	Asp	Gln	Gln	Arg	Ile	Lys	Phe	Ile	Asn	Met	Asn	Gly	Leu	Met								
			405			410						415											
Ala	Asp	Pro	Met	Lys	Val	Tyr	Lys	Asp	Arg	Gln	Val	Met	Asn	Met	Trp								
			420			425						430											
Ser	Glu	Gln	Glu	Lys	Glu	Thr	Phe	Arg	Glu	Lys	Phe	Met	Gln	His	Pro								
			435			440						445											
Lys	Asn	Phe	Gly	Leu	Ile	Ala	Ser	Phe	Leu	Glu	Arg	Lys	Thr	Val	Ala								
			450			455						460											
Glu	Cys	Val	Leu	Tyr	Tyr	Tyr	Leu	Thr	Lys	Lys	Asn	Glu	Asn	Tyr	Lys								
465				470			475						480										
Ser	Leu	Val	Arg	Arg	Ser	Tyr	Arg	Arg	Arg	Gly	Lys	Ser	Gln	Gln	Gln								
			485			490						495											
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro								
			500			505						510											
Met	Pro	Arg	Ser	Ser	Gln	Glu	Glu	Lys	Asp	Glu	Lys	Glu	Lys	Glu	Lys								
			515			520						525											
Glu	Ala	Glu	Lys	Glu	Glu	Glu	Lys	Pro	Glu	Val	Glu	Asn	Asp	Lys	Glu								
			530			535						540											
Asp	Leu	Leu	Lys	Glu	Lys	Thr	Asp	Asp	Thr	Ser	Gly	Glu	Asp	Asn	Asp								

595 600 605  
 Glu Leu Asn Glu Ser Ser Arg Trp Thr Glu Glu Glu Met Glu Thr Ala  
 610 615 620  
 Lys Lys Gly Leu Leu Glu His Gly Arg Asn Trp Ser Ala Ile Ala Arg  
 625 630 635 640  
 Met Val Gly Ser Lys Thr Val Ser Gln Cys Lys Asn Phe Tyr Phe Asn  
 645 650 655  
 Tyr Lys Lys Arg Gln Asn Leu Asp Glu Ile Leu Gln Gln His Lys Leu  
 660 665 670  
 Lys Met Glu Lys Glu Arg Asn Ala Arg Arg Lys Lys Lys Lys Ala Pro  
 675 680 685  
 Ala Ala Ala Ser Glu Glu Ala Ala Phe Pro Pro Val Val Glu Asp Glu  
 690 695 700  
 Glu Met Glu Ala Ser Gly Val Ser Gly Asn Glu Glu Glu Met Val Glu  
 705 710 715 720  
 Glu Ala Glu Ala Leu His Ala Ser Gly Asn Glu Val Pro Arg Gly Glu  
 725 730 735  
 Cys Ser Gly Pro Ala Thr Val Asn Asn Ser Ser Asp Thr Glu Ser Ile  
 740 745 750  
 Pro Ser Pro His Thr Glu Ala Ala Lys Asp Thr Gly Gln Asn Gly Pro  
 755 760 765  
 Lys Pro Pro Ala Thr Leu Gly Ala Asp Gly Pro Pro Pro Gly Pro Pro  
 770 775 780  
 Thr Pro Pro Arg Arg Thr Ser Arg Ala Pro Ile Glu Pro Thr Pro Ala  
 785 790 795 800  
 Ser Glu Ala Thr Gly Ala Pro Thr Pro Pro Ala Pro Pro Ser Pro  
 805 810 815  
 Ser Ala Pro Pro Val Val Pro Lys Glu Glu Lys Glu Glu Glu Thr  
 820 825 830  
 Ala Ala Ala Pro Pro Val Glu Glu Gly Glu Glu Gln Lys Pro Pro Ala  
 835 840 845  
 Ala Glu Glu Leu Ala Val Asp Thr Gly Lys Ala Glu Glu Pro Val Lys  
 850 855 860  
 Ser Glu Cys Thr Glu Glu Ala Glu Glu Gly Pro Ala Lys Gly Lys Asp  
 865 870 875 880  
 Ala Glu Ala Ala Glu Ala Thr Ala Glu Gly Ala Leu Lys Ala Glu Lys  
 885 890 895  
 Lys Glu Gly Gly Ser Gly Arg Ala Thr Thr Ala Lys Ser Ser Gly Ala  
 900 905 910  
 Pro Gln Asp Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp  
 915 920 925  
 Glu Ala Glu Gly Gly Asp Lys Asn Arg Leu Leu Ser Pro Arg Pro Ser  
 930 935 940  
 Leu Leu Thr Pro Thr Gly Asp Pro Arg Ala Asn Ala Ser Pro Gln Lys  
 945 950 955 960  
 Pro Leu Asp Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro  
 965 970 975  
 Ile Gln Val Thr Lys Val His Glu Pro Pro Arg Glu Asp Ala Ala Pro  
 980 985 990  
 Thr Lys Pro Ala Pro Pro Ala Pro Pro Pro Pro Gln Asn Leu Gln Pro  
 995 1000 1005  
 Glu Ser Asp Ala Pro Gln Gln Pro Gly Ser Ser Pro Arg Gly Lys Ser  
 1010 1015 1020  
 Arg Ser Pro Ala Pro Pro Ala Asp Lys Glu Ala Phe Ala Ala Glu Ala

1025                      1030                      1035                      1040  
 Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr Ser Gly Leu Pro Phe  
                                  1045                      1050                      1055  
 Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser Pro His Ala Pro Asp  
                                  1060                      1065                      1070  
 Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His Pro Leu Pro Leu Gly  
                                  1075                      1080                      1085  
 Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg Pro Pro Thr Ile Ser  
                                  1090                      1095                      1100  
 Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Ser Val Leu Glu  
 1105                      1110                      1115                      1120  
 Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu His Val  
                                  1125                      1130                      1135  
 Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly Pro Val Thr Met Gly  
                                  1140                      1145                      1150  
 Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala Pro Phe Ser Gly Val  
                                  1155                      1160                      1165  
 Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala Gly Pro Pro Glu Ser  
                                  1170                      1175                      1180  
 Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val Leu Arg Gly Thr Ala  
 1185                      1190                      1195                      1200  
 Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys Gly Ile Pro Ser Thr  
                                  1205                      1210                      1215  
 Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg Gly Ser Ile Thr His  
                                  1220                      1225                      1230  
 Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr Ile Thr Arg Ile Ile  
                                  1235                      1240                      1245  
 Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly Arg Glu Asp Ser Leu  
                                  1250                      1255                      1260  
 Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys Gly His Val Leu Ser  
 1265                      1270                      1275                      1280  
 Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser Lys Glu Asp Gly Arg  
                                  1285                      1290                      1295  
 Ser Ser Ser Gly Pro Pro His Glu Thr Ala Ala Pro Lys Arg Thr Tyr  
                                  1300                      1305                      1310  
 Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile Ser Ser Ala Ser Ile  
                                  1315                      1320                      1325  
 Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu Arg His Ser Pro His  
                                  1330                      1335                      1340  
 His Leu Lys Glu Gln His His Ile Arg Gly Ser Ile Thr Gln Gly Ile  
 1345                      1350                      1355                      1360  
 Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr Leu Arg Arg Glu Ala  
                                  1365                      1370                      1375  
 Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro Pro Pro Pro Ser Arg  
                                  1380                      1385                      1390  
 Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu Gly Pro Leu Lys Leu  
                                  1395                      1400                      1405  
 Lys Pro Ala His Glu Gly Leu Val Ala Thr Val Lys Glu Ala Gly Arg  
                                  1410                      1415                      1420  
 Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg His Thr Pro Glu Leu  
 1425                      1430                      1435                      1440  
 Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr  
                                  1445                      1450                      1455  
 Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr Gly Ser Lys Lys His

1460 1465 1470  
 Asp Val Arg Ser Leu Ile Gly Ser Pro Gly Arg Thr Phe Pro Pro Val  
 1475 1480 1485  
 His Pro Leu Asp Val Met Ala Asp Ala Arg Ala Leu Glu Arg Ala Cys  
 1490 1495 1500  
 Tyr Glu Glu Ser Leu Lys Ser Arg Pro Gly Thr Ala Ser Ser Ser Gly  
 1505 1510 1515 1520  
 Gly Ser Ile Ala Arg Gly Ala Pro Val Ile Val Pro Glu Leu Gly Lys  
 1525 1530 1535  
 Pro Arg Gln Ser Pro Leu Thr Tyr Glu Asp His Gly Ala Pro Phe Ala  
 1540 1545 1550  
 Gly His Leu Pro Arg Gly Ser Pro Val Thr Thr Arg Glu Pro Thr Pro  
 1555 1560 1565  
 Arg Leu Gln Glu Gly Ser Leu Ser Ser Ser Lys Ala Ser Gln Asp Arg  
 1570 1575 1580  
 Lys Leu Thr Ser Thr Pro Arg Glu Ile Ala Lys Ser Pro His Ser Thr  
 1585 1590 1595 1600  
 Val Pro Glu His His Pro His Pro Ile Ser Pro Tyr Glu His Leu Leu  
 1605 1610 1615  
 Arg Gly Val Ser Gly Val Asp Leu Tyr Arg Ser His Ile Pro Leu Ala  
 1620 1625 1630  
 Phe Asp Pro Thr Ser Ile Pro Arg Gly Ile Pro Leu Asp Ala Ala Ala  
 1635 1640 1645  
 Ala Tyr Tyr Leu Pro Arg His Leu Ala Pro Asn Pro Thr Tyr Pro His  
 1650 1655 1660  
 Leu Tyr Pro Pro Tyr Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala Leu  
 1665 1670 1675 1680  
 Glu Asn Arg Gln Thr Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln Met  
 1685 1690 1695  
 His His Asn Thr Ala Thr Ala Met Ala Gln Arg Ala Asp Met Leu Arg  
 1700 1705 1710  
 Gly Leu Ser Pro Arg Glu Ser Ser Leu Ala Leu Asn Tyr Ala Ala Gly  
 1715 1720 1725  
 Pro Arg Gly Ile Ile Asp Leu Ser Gln Val Pro His Leu Pro Val Leu  
 1730 1735 1740  
 Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala Met Asp Arg Leu Ala  
 1745 1750 1755 1760  
 Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser Arg His Ser Ser Ser  
 1765 1770 1775  
 Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr Lys Pro Thr Thr Thr  
 1780 1785 1790  
 Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp  
 1795 1800 1805  
 Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr Thr Thr Val Glu His  
 1810 1815 1820  
 Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser Ser Gly Ser Ser Gly  
 1825 1830 1835 1840  
 Ser Ser Gly Gly Gly Gly Gly Ser Ser Ser Arg Pro Ala Ser His Ser  
 1845 1850 1855  
 His Ala His Gln His Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu  
 1860 1865 1870  
 Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly Met Lys Gly Ile Ile  
 1875 1880 1885  
 Thr Ala Val Glu Pro Ser Thr Pro Thr Val Leu Arg Ser Thr Ser Thr

1890	1895	1900
Ser Ser Pro Val Arg Pro Ala Ala Thr Phe Pro Pro Ala Thr His Cys		
1905	1910	1915
Pro Leu Gly Gly Thr Leu Asp Gly Val Tyr Pro Thr Leu Met Glu Pro		1920
	1925	1930
Val Leu Leu Pro Lys Glu Ala Pro Arg Val Ala Arg Pro Glu Arg Pro		1935
	1940	1945
Arg Ala Asp Thr Gly His Ala Phe Leu Ala Lys Pro Pro Ala Arg Ser		1950
	1955	1960
Gly Leu Glu Pro Ala Ser Ser Pro Ser Lys Gly Ser Glu Pro Arg Pro		1965
	1970	1975
Leu Val Pro Pro Val Ser Gly His Ala Thr Ile Ala Arg Thr Pro Ala		1980
1985	1990	1995
Lys Asn Leu Ala Pro His His Ala Ser Pro Asp Pro Pro Ala Pro Pro		2000
	2005	2010
Ala Ser Ala Ser Asp Pro His Arg Glu Lys Thr Gln Ser Lys Pro Phe		2015
	2020	2025
Ser Ile Gln Glu Leu Glu Leu Arg Ser Leu Gly Tyr His Gly Ser Ser		2030
	2035	2040
Tyr Ser Pro Glu Gly Val Glu Pro Val Ser Pro Val Ser Ser Pro Ser		2045
	2050	2055
Leu Thr His Asp Lys Gly Leu Pro Lys His Leu Glu Glu Leu Asp Lys		2060
2065	2070	2075
Ser His Leu Glu Gly Glu Leu Arg Pro Lys Gln Pro Gly Pro Val Lys		2080
	2085	2090
Leu Gly Gly Glu Ala Ala His Leu Pro His Leu Arg Pro Leu Pro Glu		2095
	2100	2105
Ser Gln Pro Ser Ser Ser Pro Leu Leu Gln Thr Ala Pro Gly Val Lys		2110
	2115	2120
Gly His Gln Arg Val Val Thr Leu Ala Gln His Ile Ser Glu Val Ile		2125
	2130	2135
Thr Gln Asp Tyr Thr Arg His His Pro Gln Gln Leu Ser Ala Pro Leu		2140
2145	2150	2155
Pro Ala Pro Leu Tyr Ser Phe Pro Gly Ala Ser Cys Pro Val Leu Asp		2160
	2165	2170
Leu Arg Arg Pro Pro Ser Asp Leu Tyr Leu Pro Pro Pro Asp His Gly		2175
	2180	2185
Ala Pro Ala Arg Gly Ser Pro His Ser Glu Gly Gly Lys Arg Ser Pro		2190
	2195	2200
Glu Pro Asn Lys Thr Ser Val Leu Gly Gly Gly Glu Asp Gly Ile Glu		2205
	2210	2215
Pro Val Ser Pro Pro Glu Gly Met Thr Glu Pro Gly His Ser Arg Ser		2220
2225	2230	2235
Ala Val Tyr Pro Leu Leu Tyr Arg Asp Gly Glu Gln Thr Glu Pro Ser		2240
	2245	2250
Arg Met Gly Ser Lys Ser Pro Gly Asn Thr Ser Gln Pro Pro Ala Phe		2255
	2260	2265
Phe Ser Lys Leu Thr Glu Ser Asn Ser Ala Met Val Lys Ser Lys Lys		2270
	2275	2280
Gln Glu Ile Asn Lys Lys Leu Asn Thr His Asn Arg Asn Glu Pro Glu		2285
	2290	2295
Tyr Asn Ile Ser Gln Pro Gly Thr Glu Ile Phe Asn Met Pro Ala Ile		2300
2305	2310	2315
Thr Gly Thr Gly Leu Met Thr Tyr Arg Ser Gln Ala Val Gln Glu His		2320

2325                      2330                      2335  
 Ala Ser Thr Asn Met Gly Leu Glu Ala Ile Ile Arg Lys Ala Leu Met  
                          2340                      2345                      2350  
 Gly Lys Tyr Asp Gln Trp Glu Glu Ser Pro Pro Leu Ser Ala Asn Ala  
                          2355                      2360                      2365  
 Phe Asn Pro Leu Asn Ala Ser Ala Ser Leu Pro Ala Ala Met Pro Ile  
                          2370                      2375                      2380  
 Thr Ala Ala Asp Gly Arg Ser Asp His Thr Leu Thr Ser Pro Gly Gly  
 2385                      2390                      2395                      2400  
 Gly Gly Lys Ala Lys Val Ser Gly Arg Pro Ser Ser Arg Lys Ala Lys  
                          2405                      2410                      2415  
 Ser Pro Ala Pro Gly Leu Ala Ser Gly Asp Arg Pro Pro Ser Val Ser  
                          2420                      2425                      2430  
 Ser Val His Ser Glu Gly Asp Cys Asn Arg Arg Thr Pro Leu Thr Asn  
                          2435                      2440                      2445  
 Arg Val Trp Glu Asp Arg Pro Ser Ser Ala Gly Ser Thr Pro Phe Pro  
                          2450                      2455                      2460  
 Tyr Asn Pro Leu Ile Met Arg Leu Gln Ala Gly Val Met Ala Ser Pro  
 2465                      2470                      2475                      2480  
 Pro Pro Pro Gly Leu Pro Ala Gly Ser Gly Pro Leu Ala Gly Pro His  
                          2485                      2490                      2495  
 His Ala Trp Asp Glu Glu Pro Lys Pro Leu Leu Cys Ser Gln Tyr Glu  
                          2500                      2505                      2510  
 Thr Leu Ser Asp Ser Glu  
                          2515

&lt;210&gt; 677

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 677

gtaatgcaag gtgaacgccc aatggctgcg cagaacaaga gcattggtca gttcaccctt  
 60  
 gagggatatag ctccggcagc ccgtggtggt ccacagattg aagttacttt cgatatcgat  
 120  
 gccaacggta tcttgaatgt gagcgcaaag gataaggcta ccggttaagga acagaagatt  
 180  
 cgcacgaag cttcaagtgg ttgagtcag gaagaaatcg acagaatgaa agctgaggca  
 240  
 gaacagaatg cagcagcagg caaggctgaa cgcgaaaaga ttgataagct gaaccaagct  
 300  
 gactcaatga tttccccccc cgaaaactcc tgaaagacaa cgatn  
 345

&lt;210&gt; 678

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 678

Val Met Gln Gly Glu Arg Pro Met Ala Ala Gln Asn Lys Ser Ile Gly  
 1                      5                      10                      15  
 Gln Phe Thr Leu Glu Gly Ile Ala Pro Ala Arg Arg Gly Val Pro Gln



```

      20      25      30
Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser
      35      40      45
Ala Lys Asp Lys Ala Thr Gly Lys Glu Gln Lys Ile Arg Ile Glu Ala
      50      55      60
Ser Ser Gly Leu Ser Gln Glu Glu Ile Asp Arg Met Lys Ala Glu Ala
65      70      75      80
Glu Gln Asn Ala Ala Ala Gly Lys Ala Glu Arg Glu Lys Ile Asp Lys
      85      90      95
Leu Asn Gln Ala Asp Ser Met Ile Ser Pro Pro Glu Asn Ser
      100      105      110

```

&lt;210&gt; 679

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 679

```

acgcgtgacg tcaccgctcc atggggaaga tgacgactat ccctgtgaaa gtaaagcata
60
atgggaaaaa tgtacgttaa atgtgctaac gcgcagtatg atgtatctat gaatcttgag
120
ggtacaggcc tggatttcaa gcgtgccatt gctgacgtca cgcatgtgcc acccgaacgc
180
caaaaagtac tcatcaaggg aggattgcta aaagacgata cccattagg taaagtgggt
240
gcgcgtgcag gacagcagtt catggtgctg ggtgctgtgg gtgagctgcc caaggcccca
300
gaaaaacctg tgctgttctt ggaggatttg ccggaagacg agctcaacaa ggctaaggat
360
cc
362

```

&lt;210&gt; 680

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 680

```

Met Gly Lys Met Tyr Val Lys Cys Ala Asn Ala Gln Tyr Asp Val Ser
  1      5      10      15
Met Asn Leu Glu Gly Thr Gly Leu Asp Phe Lys Arg Ala Ile Ala Asp
      20      25      30
Val Thr His Val Pro Pro Glu Arg Gln Lys Val Leu Ile Lys Gly Gly
      35      40      45
Leu Leu Lys Asp Asp Thr Pro Leu Gly Lys Val Gly Ala Arg Ala Gly
      50      55      60
Gln Gln Phe Met Val Leu Gly Ala Val Gly Glu Leu Pro Lys Ala Pro
65      70      75      80
Glu Lys Pro Val Leu Phe Leu Glu Asp Leu Pro Glu Asp Glu Leu Asn
      85      90      95
Lys Ala Lys Asp
      100

```

<210> 681  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 681  
 acgcggtccaa atggacaaac gcttgatgat ttctaccatg aaattagagc aaaatatcca  
 60  
 gaacaattac tgatggcaga ctgttcaaca gtagaagaaa tgattcacgc tgatgaactc  
 120  
 ggttttgatt ttatcggaag tacttttagta ggatatacaa aacaaagtaa aggtgacaaa  
 180  
 atcgaagaaa atgactttga aatcttgaga acagtttttag aacgaattaa acatccacta  
 240  
 attgcagaag gcaatatcga tacacctgaa aaggtgaaac gtgtgcttga gttaggcgcg  
 300  
 tatagtgtcg ttgtagggtc agcgattact cgtccacaac tcatcacgaa aaaattt  
 357

<210> 682  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 682  
 Thr Arg Pro Asn Gly Gln Thr Leu Asp Asp Phe Tyr His Glu Ile Arg  
 1 5 10 15  
 Ala Lys Tyr Pro Glu Gln Leu Leu Met Ala Asp Cys Ser Thr Val Glu  
 20 25 30  
 Glu Met Ile His Ala Asp Glu Leu Gly Phe Asp Phe Ile Gly Ser Thr  
 35 40 45  
 Leu Val Gly Tyr Thr Lys Gln Ser Lys Gly Asp Lys Ile Glu Glu Asn  
 50 55 60  
 Asp Phe Glu Ile Leu Arg Thr Val Leu Glu Arg Ile Lys His Pro Leu  
 65 70 75 80  
 Ile Ala Glu Gly Asn Ile Asp Thr Pro Glu Lys Val Lys Arg Val Leu  
 85 90 95  
 Glu Leu Gly Ala Tyr Ser Val Val Val Gly Ser Ala Ile Thr Arg Pro  
 100 105 110  
 Gln Leu Ile Thr Lys Lys Phe  
 115

<210> 683  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 683  
 ntctccgacc gcgtggtaaa actggcgacc ttaattgctg aagatgagca agctgaaatg  
 60  
 aatattgttt tgcccgagc gtggttgcac gattgcgtca gttaccctaa aaaccatgta  
 120  
 ttaagagcac aaagtgcatt acatgcagca gataaagcga ttgtattttt gcgcagtatt  
 180

aattacccca aacaatactt attagcaatt catcatgcaa tttcagcgca cagtgtcagt  
 240  
 ggtaaaatac aggcaatgag tttagaagct caaatagtgc aagatgcaga tagattggat  
 300  
 gcgctagggg caattggcgt ggctcgttgc attcaagtaa gtagccagtt acagcgccca  
 360  
 ctatattctg aagttgaccc cttcagcgag acacgatctc tagtctgcat g  
 411

<210> 684

<211> 137

<212> PRT

<213> Homo sapiens

<400> 684

Xaa	Ser	Asp	Arg	Val	Val	Lys	Leu	Ala	Thr	Leu	Ile	Ala	Glu	Asp	Glu
1				5					10					15	
Gln	Ala	Glu	Met	Asn	Ile	Val	Leu	Pro	Ala	Ala	Trp	Leu	His	Asp	Cys
			20					25					30		
Val	Ser	Tyr	Pro	Lys	Asn	His	Val	Leu	Arg	Ala	Gln	Ser	Ala	Leu	His
		35					40					45			
Ala	Ala	Asp	Lys	Ala	Ile	Val	Phe	Leu	Arg	Ser	Ile	Asn	Tyr	Pro	Lys
		50				55					60				
Gln	Tyr	Leu	Leu	Ala	Ile	His	His	Ala	Ile	Ser	Ala	His	Ser	Val	Ser
65					70				75					80	
Gly	Lys	Ile	Gln	Ala	Met	Ser	Leu	Glu	Ala	Gln	Ile	Val	Gln	Asp	Ala
				85				90						95	
Asp	Arg	Leu	Asp	Ala	Leu	Gly	Ala	Ile	Gly	Val	Ala	Arg	Cys	Ile	Gln
			100				105						110		
Val	Ser	Ser	Gln	Leu	Gln	Arg	Pro	Leu	Tyr	Ser	Glu	Val	Asp	Pro	Phe
		115				120						125			
Ser	Glu	Thr	Arg	Ser	Leu	Val	Cys	Met							
		130				135									

<210> 685

<211> 417

<212> DNA

<213> Homo sapiens

<400> 685

acgcgttgcg ttgcggagtg aacccggaac gatggatgga ttgacactat tcggcctgtt  
 60  
 cgccgtcact gcgatgctgg tctgctatgc catggaggac cgcagccact ggttcgtgct  
 120  
 gctgttcgcg gccgcttggc gctcggttcg gcctacggct tctccaagg cgcttgccg  
 180  
 ttcggcttcg tcgaggcgat atgggcgctc gttgcctgcg gcgtggtgga cgatcaggcc  
 240  
 gcgatgaccg catcgtccgg cttaagcccg gaaacgaaac cgaccagtgc gctggtttga  
 300  
 tggggggcgc gtcgctggat gcacagcgtc tcgacgcgag cgtgatgatg gcctcagcgc  
 360  
 gtgcatgccg acgctgtcgc tcatcgcgct acgctcgacc acggcgcgcg gcaatag  
 417

<210> 686  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 686  
 Met Pro Trp Arg Thr Ala Ala Thr Gly Ser Cys Cys Cys Ser Arg Pro  
 1 5 10 15  
 Leu Gly Ala Arg Phe Gly Leu Arg Leu Pro Pro Arg Arg Leu Ala Val  
 20 25 30  
 Arg Leu Arg Arg Gly Asp Met Gly Ala Arg Cys Leu Arg Arg Gly Gly  
 35 40 45  
 Arg Ser Gly Arg Asp Asp Arg Ile Val Arg Leu Lys Pro Gly Asn Glu  
 50 55 60  
 Thr Asp Gln Cys Ala Gly Leu Met Gly Gly Ala Ser Leu Asp Ala Gln  
 65 70 75 80  
 Arg Leu Asp Ala Ser Val Met Met Ala Ser Ala Arg Ala Cys Arg Arg  
 85 90 95  
 Cys Arg Ser Ser Arg Tyr Ala Arg Pro Arg Arg Ala Ala Ile  
 100 105 110

<210> 687  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 687  
 nnacgcgtga ccgaccaact gcgagccacc ctgctcgcca tggctgctat ggggttgac  
 60  
 gacggcatcg atattccgtc tggggcgatt attgaaagct gccgcacctt atcagccgtt  
 120  
 ctgatgaaa cccacggtgg tcgcacgac gagcttcggg taccacctgc gtgcgcggtt  
 180  
 caattggcgg ccattgagtc gggccccaac caccaccggg gcactccgcc caatgtggcc  
 240  
 gagaccgacc ctgtcacctt cctgcagttg gcaactggct tctcacactg gccagaaatg  
 300  
 cgctcagcag gacgggttca ggcgtctgga tcccacgtcg acgacgttgc tggcgtgttc  
 360  
 ccagtcgttg atatggccgg gggtttccgc gacatttttg ccgacgacta ga  
 412

<210> 688  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 688  
 Xaa Arg Val Thr Asp Gln Leu Arg Ala Thr Leu Leu Ala Met Ala Ala  
 1 5 10 15  
 Met Gly Leu His Asp Gly Ile Asp Ile Pro Ser Gly Ala Ile Ile Glu  
 20 25 30  
 Ser Cys Arg Thr Leu Ser Ala Val Leu Asp Glu Thr His Gly Gly Arg

```

      35              40              45
Thr Ile Glu Leu Arg Val Pro Pro Ala Cys Ala Val Gln Leu Ala Ala
      50              55              60
Ile Glu Ser Gly Pro Asn His His Arg Gly Thr Pro Pro Asn Val Ala
      65              70              75              80
Glu Thr Asp Pro Val Thr Phe Leu Gln Leu Ala Thr Gly Phe Ser His
      85              90              95
Trp Pro Glu Met Arg Ser Ala Gly Arg Val Gln Ala Ser Gly Ser His
      100              105              110
Val Asp Asp Val Ala Gly Val Phe Pro Val Val Asp Met Ala Gly Val
      115              120              125
Phe Arg Asp Ile Phe Ala Asp Asp
      130              135

```

<210> 689  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

```

<400> 689
cgcgctcgcg tactcgacgt cgattttcat cacggtaacg gcacccagaa cattttttac
60
ccgcgcaatg acgtgatgtt catatcgctg cacggcgagc cggccgtgtc ctatccctac
120
tattcgggggt tcagcgatga agtcggcgca ggtgttggcg aagggttcaa cctcaactac
180
ccgctgccga aaaacaccgc ctgggatacc taccgcgacg ccctgctgca tgcctgcagg
240
aaactccagc aattctcgcc gcaggtattg gtgatctcac tgggggtcga caccttcaag
300
gacgacccga tcagtcactt cctgctggaa ggcgaggatt tcatcgggat cggcgagctg
360
atagcgagtg tgggttgccc caccctgttt gtgatggaag gcggctatat ggtcgatgaa
420
atcggaatca acgcggtgaa cgtactgcat ggcttcgaga gcaagcgcgc ttgagcatcc
480
gcccgaagac ggcgtgata
499

```

<210> 690  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 690
Arg Val Ala Val Leu Asp Val Asp Phe His His Gly Asn Gly Thr Gln
1              5              10              15
Asn Ile Phe Tyr Pro Arg Asn Asp Val Met Phe Ile Ser Leu His Gly
      20              25              30
Glu Pro Ala Val Ser Tyr Pro Tyr Tyr Ser Gly Phe Ser Asp Glu Val
      35              40              45
Gly Ala Gly Val Gly Glu Gly Phe Asn Leu Asn Tyr Pro Leu Pro Lys
      50              55              60
Asn Thr Ala Trp Asp Thr Tyr Arg Asp Ala Leu Leu His Ala Cys Arg

```

```

65          70          75          80
Lys Leu Gln Gln Phe Ser Pro Gln Val Leu Val Ile Ser Leu Gly Val
      85          90          95
Asp Thr Phe Lys Asp Asp Pro Ile Ser His Phe Leu Leu Glu Gly Glu
      100         105         110
Asp Phe Ile Gly Ile Gly Glu Leu Ile Ala Ser Val Gly Cys Pro Thr
      115         120         125
Leu Phe Val Met Glu Gly Gly Tyr Met Val Asp Glu Ile Gly Ile Asn
      130         135         140
Ala Val Asn Val Leu His Gly Phe Glu Ser Lys Arg Ala
      145         150         155

```

<210> 691  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

```

<400> 691
ntgctgctgtg aaaacgtgca ggcgggcgca tcagcgactg gcgagcgctt tggctggagt
60
tcgcaaaggc aaggccccctg ggagttggcc tgcgacatcg cgctgccgtg cgccaccacg
120
aacgaactgg acgccgacgc cgccgcacg ctgctgcgca acggctgcct ttgctgggt
180
ggaggcgca atatgccgcc cgcgcttgag gctgtggata tctttatcga ggcgggcatt
240
ctgttcgcgc ccggcaaggc atccaatgcc ggcggcgctgg ccgtgagtgg cctggaaatg
300
tcgcagaacg ccatgcgcct gctgtggacc gccggc
336

```

<210> 692  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

```

<400> 692
Xaa Leu Arg Glu Asn Val Gln Arg Gly Ala Ser Ala Thr Gly Glu Arg
1          5          10         15
Phe Gly Trp Ser Ser Gln Arg Gln Gly Pro Trp Glu Leu Ala Cys Asp
      20         25         30
Ile Ala Leu Pro Cys Ala Thr Gln Asn Glu Leu Asp Ala Asp Ala Ala
      35         40         45
Arg Thr Leu Leu Arg Asn Gly Cys Leu Cys Val Ala Gly Gly Ala Asn
      50         55         60
Met Pro Pro Ala Leu Glu Ala Val Asp Ile Phe Ile Glu Ala Gly Ile
65         70         75         80
Leu Phe Ala Pro Gly Lys Ala Ser Asn Ala Gly Gly Val Ala Val Ser
      85         90         95
Gly Leu Glu Met Ser Gln Asn Ala Met Arg Leu Leu Trp Thr Ala Gly
      100        105        110

```

<210> 693  
 <211> 580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 693

```

ngggcaaccc ggaagggtccg gcgtcccagc cgcttacctc gctggggaccc tggctcttgct
60
gtcccccgct ggcctcctgc ccaagcgact gcggccagga tgggccggaa ggtgaccgtg
120
gccacctgcg cactcaacca gtggggccctg gacttcgagg gcaatttgca aagaatttta
180
aagagtattg aaattgccaa aaacagagga gcaagataca ggcttgacc agagctggaa
240
atatgcggtc gcggatgttg ggatcattat tacgagtcgg acaccctctt gactcgttt
300
caagtcctag cggcccttgt ggagtctccc gtcactcagg acatcatctg cgacgtgggg
360
atacctgtaa tgcaccgaaa cgtccgctac aactgcagag tgatattcct caacaggaag
420
atcctgtcga tcagacccaa gatggccttg gccaatgaag gcaactaccg cgagctgcgc
480
tggttcaccc cgtggtcgag gagtcggtga gtcgggtgcc tgaccactcc tgggatgtgc
540
gttaagcacc tccgctgtgt gtagccttgg gtcctgatca
580

```

&lt;210&gt; 694

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 694

```

Met Gly Arg Lys Val Thr Val Ala Thr Cys Ala Leu Asn Gln Trp Ala
1           5           10           15
Leu Asp Phe Glu Gly Asn Leu Gln Arg Ile Leu Lys Ser Ile Glu Ile
20          25          30
Ala Lys Asn Arg Gly Ala Arg Tyr Arg Leu Gly Pro Glu Leu Glu Ile
35          40          45
Cys Gly Cys Gly Cys Trp Asp His Tyr Tyr Glu Ser Asp Thr Leu Leu
50          55          60
His Ser Phe Gln Val Leu Ala Ala Leu Val Glu Ser Pro Val Thr Gln
65          70          75          80
Asp Ile Ile Cys Asp Val Gly Ile Pro Val Met His Arg Asn Val Arg
85          90          95
Tyr Asn Cys Arg Val Ile Phe Leu Asn Arg Lys Ile Leu Leu Ile Arg
100         105         110
Pro Lys Met Ala Leu Ala Asn Glu Gly Asn Tyr Arg Glu Leu Arg Trp
115         120         125
Phe Thr Pro Trp Ser Arg Ser Arg
130         135

```

&lt;210&gt; 695

&lt;211&gt; 439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 695

ntgggtgactc aggcgtccaa tggcacgatg gctgacgtcg tcaatatgcc gtcctcgacc  
60  
atcatggctc tgcgagggc tgattacctg ctgatatcg agacttcggt gcccggtatc  
120  
ggcgacaagt tcgtcccga cgtctggggc aaactcaaac tcggcaagga caacgagcac  
180  
accgctctgc cctggtactt cggcccgttc gtcgtgacgt acaacaagga cattttcaag  
240  
gatgttgcc tcgatcccga aatcccgcg aagacgatga ccgagtacct cgacttcgcc  
300  
aagaaaatca ccgctgccg caagcaggcg gtctatggca acacgtcgtg gtacatgctc  
360  
gcggaatggc gtgccctcg cgtcaaggtc atgaatgacg acttcaccaa gttcactttt  
420  
gcctcggaat ccaacgcgt  
439

&lt;210&gt; 696

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 696

Xaa	Val	Thr	Gln	Ala	Ser	Asn	Gly	Thr	Met	Ala	Asp	Val	Val	Asn	Met
1				5					10					15	
Pro	Ser	Ser	Thr	Ile	Met	Ala	Leu	Ser	Arg	Ala	Asp	Tyr	Leu	Leu	Asp
			20					25					30		
Ile	Glu	Thr	Ser	Val	Pro	Gly	Ile	Gly	Asp	Lys	Phe	Val	Pro	Asp	Val
		35					40					45			
Trp	Gly	Lys	Leu	Lys	Leu	Gly	Lys	Asp	Asn	Glu	His	Thr	Ala	Leu	Pro
	50					55					60				
Trp	Tyr	Phe	Gly	Pro	Phe	Val	Val	Thr	Tyr	Asn	Lys	Asp	Ile	Phe	Lys
65					70					75				80	
Asp	Val	Gly	Leu	Asp	Pro	Glu	Ile	Pro	Pro	Lys	Thr	Met	Thr	Glu	Tyr
				85				90						95	
Leu	Asp	Phe	Ala	Lys	Lys	Ile	Thr	Ala	Ala	Gly	Lys	Gln	Ala	Val	Tyr
			100					105					110		
Gly	Asn	Thr	Ser	Trp	Tyr	Met	Leu	Ala	Glu	Trp	Arg	Ala	Leu	Gly	Val
		115					120					125			
Lys	Val	Met	Asn	Asp	Asp	Phe	Thr	Lys	Phe	Thr	Phe	Ala	Ser	Glu	Ser
	130						135					140			
Asn	Ala														
145															

&lt;210&gt; 697

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 697

nggcaataac gccgtcgtcg aaatccgttc ccttgatctc gaacatgccg atgaagcggg  
60



tgtcggatgat ggggtcggag atgtcgccct cccacaactt gaacttgatc ggaccaaccc  
 120  
 tttccaccct ggagagactc gcttgccttg aaagtcttct tgccttctt gggcaactga  
 180  
 tcgcccctccc gaacgagata atccaagctc aagcgaccgc ccaccttgtc gcgcgcctcc  
 240  
 acaccgacgg aatgcgatgc cgggatcgca tcgatgctag cggcgggtgcg tgcaatgaca  
 300  
 atcttgtctt cagcgagcga tacgggccccg ccgttggaat cgaacacaaa caccttgaag  
 360  
 gcgttgtn  
 368

&lt;210&gt; 698

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 698

Met	Pro	Met	Lys	Arg	Leu	Ser	Val	Met	Gly	Ser	Glu	Met	Ser	Pro	Ser
1				5					10					15	
His	Asn	Leu	Asn	Leu	Ile	Gly	Pro	Thr	Leu	Ser	Thr	Leu	Glu	Arg	Leu
			20					25					30		
Ala	Cys	Leu	Glu	Ser	Leu	Leu	Ala	Leu	Leu	Gly	Gln	Leu	Ile	Ala	Leu
		35					40					45			
Pro	Asn	Glu	Ile	Ile	Gln	Ala	Gln	Ala	Thr	Ala	His	Leu	Val	Ala	Arg
	50				55						60				
Leu	His	Thr	Asp	Gly	Met	Arg	Cys	Arg	Asp	Arg	Ile	Asp	Ala	Ser	Gly
65				70					75					80	
Gly	Ala	Cys	Asn	Asp	Asn	Leu	Val	Phe	Thr	Gln	Arg	Tyr	Gly	Pro	Ala
			85					90						95	
Val	Gly	Ile	Glu	His	Lys	His	Leu	Glu	Gly	Val	Val				
			100					105							

&lt;210&gt; 699

&lt;211&gt; 363

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 699

nacgcgtaca caaatagtat cggaatcatt tcctatcatg ctgctatgac gagattttctc  
 60  
 cacacctcag attggcaact ggggatgact cggcactacc tgtcgaagcg cggcgacgac  
 120  
 gacccacagg cacggtttac tgccgatcga atcgagacgg tgcgcaggct gggcgacggt  
 180  
 gcccggaagg agggctgcga gtttgtcgtc gtcgccggag atgtcttcga aaccacaaat  
 240  
 gtctccactc agatcattgc ccgcgcgtgt gaggcgatag cctccattga tctccccgtg  
 300  
 tacctgctgc ccggaaatca cgacagctta gagccgggggt gtctctggga tgggccagaa  
 360  
 ttc  
 363

<210> 700  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 700  
 Xaa Ala Tyr Thr Asn Ser Ile Gly Ile Ile Ser Tyr His Ala Ala Met  
 1 5 10 15  
 Thr Arg Phe Leu His Thr Ser Asp Trp Gln Leu Gly Met Thr Arg His  
 20 25 30  
 Tyr Leu Ser Lys Arg Gly Asp Asp Asp Pro Gln Ala Arg Phe Thr Ala  
 35 40 45  
 Asp Arg Ile Glu Thr Val Arg Arg Leu Gly Asp Val Ala Arg Lys Glu  
 50 55 60  
 Gly Cys Glu Phe Val Val Val Ala Gly Asp Val Phe Glu Thr His Asn  
 65 70 75 80  
 Val Ser Thr Gln Ile Ile Ala Arg Ala Cys Glu Ala Ile Ala Ser Ile  
 85 90 95  
 Asp Leu Pro Val Tyr Leu Leu Pro Gly Asn His Asp Ser Leu Glu Pro  
 100 105 110  
 Gly Cys Leu Trp Asp Gly Pro Glu Phe  
 115 120

<210> 701  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 701  
 nacgcgtccg ggcacaccgt caccgaggcg acgttccacg gccacccac gctgatctat  
 60  
 ttcggctacg tccattgcgc ggatgtctgc ccgctgacac tgggcaacat ggtctcggcc  
 120  
 ctcgatcgcc tgggctcccg ggcggacggc atcgttccga tcttcatctc cgtcgatccg  
 180  
 gcccgcgaca caccgcgct ggtcggacag tatgtcgcgc atttctcgcc gcggatcgtc  
 240  
 gggctgaccg gcaccgcagc gcagctggcg ccggtactgg cggagttcca catcaccgcg  
 300  
 cgcgccgaac ctgcggcaca cgacatggcc gccgacatgt atgccgtcga ccacagcgcc  
 360  
 ctctctatc tgatggacgg caacaaccgc ctgttgcggg tgatggcggt cagcgccgac  
 420  
 gctgcctcgc tgacgcacca gctggcgccc ggcctggcgg gggcaagaat gagaccatga  
 480  
 aagcgatcgg accgacggac gccccgaac aggcagcgcc gggctggtcg ttcggcatca  
 540  
 tctgctgct cggcatcgcc ggcattgctg atttctcga ccggt  
 585

<210> 702  
 <211> 159  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 702

```

Xaa Ala Ser Gly His Thr Val Thr Glu Ala Thr Phe His Gly His Pro
 1           5           10           15
Thr Leu Ile Tyr Phe Gly Tyr Val His Cys Ala Asp Val Cys Pro Leu
 20           25           30
Thr Leu Gly Asn Met Val Ser Ala Leu Asp Arg Leu Gly Ser Arg Ala
 35           40           45
Asp Gly Ile Val Pro Ile Phe Ile Ser Val Asp Pro Ala Arg Asp Thr
 50           55           60
Pro Ala Leu Val Gly Gln Tyr Val Ala His Phe Ser Pro Arg Ile Val
 65           70           75           80
Gly Leu Thr Gly Thr Ala Ala Gln Leu Ala Pro Val Leu Ala Glu Phe
 85           90           95
His Ile Thr Ala Arg Ala Glu Pro Ala Ala His Asp Met Ala Ala Asp
100           105           110
Met Tyr Ala Val Asp His Ser Ala Leu Leu Tyr Leu Met Asp Gly Asn
115           120           125
Asn Arg Leu Leu Arg Val Met Ala Val Ser Ala Asp Ala Ala Ser Leu
130           135           140
Thr His Gln Leu Ala Ala Gly Leu Ala Gly Ala Arg Met Arg Pro
145           150           155

```

&lt;210&gt; 703

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 703

```

ttctctgctc catacacacc tcagcagaat ggcacgcgcg agcgcaagaa cataactctt
60
attgagatgg cccgaacgat gcttgatgag tacaagactc cgcggaagtt ctggcctgaa
120
gccattgata ctgcttgatc caccatcaac cgcgtttatc ttcacaaggt tttggagaaa
180
acctcttatg agttcctaac tggtaagaaa cccaatgtaa gctatttcag agtatttggt
240
gctaggtgct ggatcaagga tcctcatcac acttcaaaat ttgcaccgaa agcacatgaa
300
ggttttatgc ttgggttacgg aaaggattcg cactcctaca gagtcttcaa cctctttcac
360
tataaagtgg ttcaaactgt ggatgtgcgn
390

```

&lt;210&gt; 704

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 704

```

Phe Ser Ala Pro Tyr Thr Pro Gln Gln Asn Gly Ile Ala Glu Arg Lys
 1           5           10           15
Asn Ile Thr Leu Ile Glu Met Ala Arg Thr Met Leu Asp Glu Tyr Lys

```

20 25 30  
 Thr Pro Arg Lys Phe Trp Pro Glu Ala Ile Asp Thr Ala Cys His Thr  
 35 40 45  
 Ile Asn Arg Val Tyr Leu His Lys Val Leu Glu Lys Thr Ser Tyr Glu  
 50 55 60  
 Phe Leu Thr Gly Lys Lys Pro Asn Val Ser Tyr Phe Arg Val Phe Gly  
 65 70 75 80  
 Ala Arg Cys Trp Ile Lys Asp Pro His His Thr Ser Lys Phe Ala Pro  
 85 90 95  
 Lys Ala His Glu Gly Phe Met Leu Gly Tyr Gly Lys Asp Ser His Ser  
 100 105 110  
 Tyr Arg Val Phe Asn Leu Phe His Tyr Lys Val Val Gln Thr Val Asp  
 115 120 125  
 Val Arg  
 130

<210> 705  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

<400> 705  
 acgcgtatatt cgtccaaatg attcaaatca aaacgccgcc gttaaaaacg atgcaggcga  
 60  
 agacaatgcg aataaaaaaag gtggtaaata agcatgagtt ttaaaatgac acaatctcaa  
 120  
 tacacaagtc tttatggacc aactgtagga gactccgtga gattaggaga tacgaacttg  
 180  
 tttgcacaag ttgagaaaga ctatgcaaatt tatggggatg aagctacttt cggtggcgga  
 240  
 aaatcaattc gtgatgggtat ggctcaaaat cctaattgtga caagagatga taaaaatgta  
 300  
 gccgatttag ttttaactaa cgcattaatt attgattatg acaagattgt taaagcagat  
 360  
 atcgggtatta aaaatgggta tatttttaag attggtaaag ctggaaaccc agatataatg  
 420  
 gataacgttg acatcatcat tgggtgcaaca actgatatta ttgctgctga aggtaaaatt  
 480  
 gttactgccg gcggtatcga tacacacgtg cac  
 513

<210> 706  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 706  
 Met Ser Phe Lys Met Thr Gln Ser Gln Tyr Thr Ser Leu Tyr Gly Pro  
 1 5 10 15  
 Thr Val Gly Asp Ser Val Arg Leu Gly Asp Thr Asn Leu Phe Ala Gln  
 20 25 30  
 Val Glu Lys Asp Tyr Ala Asn Tyr Gly Asp Glu Ala Thr Phe Gly Gly  
 35 40 45  
 Gly Lys Ser Ile Arg Asp Gly Met Ala Gln Asn Pro Asn Val Thr Arg

```

      50              55              60
Asp Asp Lys Asn Val Ala Asp Leu Val Leu Thr Asn Ala Leu Ile Ile
65              70              75              80
Asp Tyr Asp Lys Ile Val Lys Ala Asp Ile Gly Ile Lys Asn Gly Tyr
      85              90              95
Ile Phe Lys Ile Gly Lys Ala Gly Asn Pro Asp Ile Met Asp Asn Val
      100              105              110
Asp Ile Ile Ile Gly Ala Thr Thr Asp Ile Ile Ala Ala Glu Gly Lys
      115              120              125
Ile Val Thr Ala Gly Gly Ile Asp Thr His Val His
      130              135              140

```

&lt;210&gt; 707

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 707

```

acgcgtggca tcctcagacc accaaagaca atcctgtcct gggaggcagg gagaaagccg
60
gcacactaca cagtgcacag gtgaagccct caggggggtcc tggagcaggg ccacctccct
120
gggggatccc caggtgccat tttcatggca gtgtctatgg acggctcccc ttggcatggg
180
gctgggtggc aatcctggct gtagctgcca cccctgccc tttttgcttc cctccgaggg
240
cattgtgatc atcagtgtga gtctgttggg aaggagagcc aggtccccag gtttgggaaa
300
ggagtagggg ttcccagcct gtctggccat cccccccag cccagcccct cctgctgggt
360
gacgtgtca gttcgcccc tgctgtactg ggaggggggt aggagcata
409

```

&lt;210&gt; 708

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 708

```

Met Leu Leu Ala Pro Ser Gln Tyr Ser Arg Gly Arg Thr Glu His Val
1              5              10              15
Thr Gln Gln Glu Gly Leu Gly Trp Gly Val Met Ala Arg Gln Ala Gly
      20              25              30
Lys Pro Tyr Ser Phe Pro Lys Pro Gly Asp Leu Ala Leu Leu Pro Asn
      35              40              45
Arg Leu Thr Leu Met Ile Thr Met Pro Ser Glu Gly Ser Lys Lys Gly
      50              55              60
Arg Gly Trp Gln Leu Gln Pro Gly Leu Pro Pro Ser Thr Met Pro Arg
65              70              75              80
Gly Ala Val His Arg His Cys His Glu Asn Gly Thr Trp Gly Ser Pro
      85              90              95
Arg Glu Val Ala Leu Leu Gln Asp Pro Leu Arg Ala Ser Pro Val His
      100              105              110
Cys Val Val Cys Arg Leu Ser Pro Cys Leu Pro Gly Gln Asp Cys Leu

```

115 120 125  
 Trp Trp Ser Glu Asp Ala Thr Arg  
 130 135  
 <210> 709  
 <211> 771  
 <212> DNA  
 <213> Homo sapiens  
 <400> 709  
 acgcgtctga cggagagcct cctgagtctc cccacgcaga ggactcagaa aggggaatcgg  
 60  
 tgaccacacc tgggccagcg acgtgtggtg cgccagcctc cccagcggat cacctcctcc  
 120  
 tccccctcca ggaggagagt ttctccgaag tccccatgag tgaagcaagc tcagcgaaag  
 180  
 acactccact ctttaggatg gagggagagg atgcccttgt gactcagtat cagagcaaag  
 240  
 ccagtgacca cgaagggttta ttgtctgacc ccttgagtga ccttcagttg gtctcagatt  
 300  
 ttaaattctcc aatcatggcc gatctgaact taagccttcc ttccattcct gaagtcgcat  
 360  
 cggatgatga aagaatagat caggttgaag atgacggaga tcaggttgaa gatgatggag  
 420  
 agacagcaaa gtcgtcaact ctggacatag gagctttgtc cttgggcttg gtagtcccct  
 480  
 gtcttgagag gggaaagggg cccagtggcg aggcagatag gttggtactg ggggagggcc  
 540  
 tgtgtgattt caggctgcaa gcaccccagg catctgtgac agctccttca gagcagacca  
 600  
 cagagtctcg aattcacaaa ccacatcttg gcaagagctc aagcttggaat aaacagctgc  
 660  
 caggccccag tgggtggtgag gaagaaaaac cgatgggaaa tgggagtcca agccccctc  
 720  
 ctggcacatc cctggacaat cctgtaccca gccctcccc ttctgagatc t  
 771

<210> 710  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 710  
 Met Ser Glu Ala Ser Ser Ala Lys Asp Thr Pro Leu Phe Arg Met Glu  
 1 5 10 15  
 Gly Glu Asp Ala Leu Val Thr Gln Tyr Gln Ser Lys Ala Ser Asp His  
 20 25 30  
 Glu Gly Leu Leu Ser Asp Pro Leu Ser Asp Leu Gln Leu Val Ser Asp  
 35 40 45  
 Phe Lys Ser Pro Ile Met Ala Asp Leu Asn Leu Ser Leu Pro Ser Ile  
 50 55 60  
 Pro Glu Val Ala Ser Asp Glu Arg Ile Asp Gln Val Glu Asp Asp  
 65 70 75 80  
 Gly Asp Gln Val Glu Asp Asp Gly Glu Thr Ala Lys Ser Ser Thr Leu

```

<400> 712
Met Ile Met Asn Thr Val Phe Ile Ile Asp Asp His Pro Val Ile Arg
 1             5             10             15
Leu Ala Ile Arg Met Leu Leu Glu His Glu Gly Tyr Lys Val Val Gly
      20             25             30
Glu Thr Asp Asn Gly Cys Asp Ala Ile Gln Met Val Arg Glu Cys Leu
      35             40             45
Pro Asp Leu Ile Ile Leu Asp Ile Ser Ile Pro Lys Leu Asp Gly Leu
      50             55             60
Glu Val Leu Cys Arg Phe Asn Ala Met Asn Thr Ser Met Lys Thr Leu

```





<210> 715  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 715  
 nnaccggtgg atgccaacga atatcgtggc gagctgaaag tcggcgccat caccaccgcc  
 60  
 cagaccggcc tgctgcctca ggcactggtg cgtttgcgcc aggcagcgcc gacggtggag  
 120  
 tgcaagtggg taccgggggt ttccctggag ttgctcagcc aggtggacgc aggcgagctg  
 180  
 gactcggcga tcattcattcg cccgcccttt gatttgccca aggagttgca cgtacaggta  
 240  
 ctgcgcaagg agccgtttgt gttgatcgtg cccagggcgg tcgggggtga tgaccggtg  
 300  
 caactgctcg aagctcatcc ccacgtgcgc tacgaccgcg cttcgtttgg cggg  
 354

<210> 716  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 716  
 Xaa Pro Val Asp Ala Asn Glu Tyr Arg Gly Glu Leu Lys Val Gly Ala  
 1 5 10 15  
 Ile Thr Thr Ala Gln Thr Gly Leu Leu Pro Gln Ala Leu Val Arg Leu  
 20 25 30  
 Arg Gln Ala Ala Pro Thr Val Glu Cys Lys Leu Val Pro Gly Val Ser  
 35 40 45  
 Leu Glu Leu Leu Ser Gln Val Asp Ala Gly Glu Leu Asp Ser Ala Ile  
 50 55 60  
 Ile Ile Arg Pro Pro Phe Asp Leu Pro Lys Glu Leu His Val Gln Val  
 65 70 75 80  
 Leu Arg Lys Glu Pro Phe Val Leu Ile Val Pro Gln Ala Val Gly Gly  
 85 90 95  
 Asp Asp Pro Leu Gln Leu Leu Glu Ala His Pro His Val Arg Tyr Asp  
 100 105 110  
 Arg Ala Ser Phe Gly Gly  
 115

<210> 717  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 717  
 acgcgtatct tttcggtaaa cctactaatt ttctattcaa cgctcgacgc ccaggtaaag  
 60  
 ccgttaagtc atctaaatag gccattctgt ggctctccat cagtaagaac caaatccata  
 120  
 ggagaagttg agcggatagt aatgcatcaa attgatgctg agaaaccgaa aaatgggaca  
 180

atataatcaa gctgacaata ctgatcaaac cactcgcatg aaagctacta ccgcttgacc  
 240  
 accaagcaga aaaaaccaat gaaatgctta aaaataaaat cgtccaaagt aaaaagctag  
 300  
 accaggtggt agccagatta aaaataggcc gctctagaaa atgaaaagaa atccaatgag  
 360  
 attcaacggc gtagcaccag cacagcaaca tagccactag t  
 401

<210> 718  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 718  
 Met Leu Leu Cys Trp Cys Tyr Ala Val Glu Ser His Trp Ile Ser Phe  
 1 5 10 15  
 His Phe Leu Glu Arg Pro Ile Phe Asn Leu Ala Thr Thr Trp Ser Ser  
 20 25 30  
 Phe Leu Leu Trp Thr Ile Leu Phe Leu Ser Ile Ser Leu Val Phe Ser  
 35 40 45  
 Ala Trp Trp Ser Ser Gly Ser Ser Phe His Al Ser Gly Leu Ile Ser  
 50 55 60  
 Ile Val Ser Leu Ile Ile Leu Ser His Phe Ser Val Ser Gln His Gln  
 65 70 75 80  
 Phe Asp Ala Leu Leu Ser Ala Gln Leu Leu Trp Ile Trp Phe Leu  
 85 90 95  
 Leu Met Glu Ser His Arg Met Ala Tyr Leu Asp Asp Leu Thr Ala Leu  
 100 105 110  
 Pro Gly Arg Arg Ala Leu Asn Glu Lys Leu Val Gly Leu Pro Lys Arg  
 115 120 125  
 Tyr Ala  
 130

<210> 719  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 719  
 tatatagggc tatctacctt attcacagca cattccatct acacaacctt gtagcggttca  
 60  
 ctcttgaagg cggattttca taggcgctgc gcctctcata ttcaagcatc aaggcaatcc  
 120  
 aatctccctg cgttggtaac tgggcaaaag aaagacctct gcagtccagc aacctcatcg  
 180  
 tgcaaagtcc gtggcggtgt caactctgac ggcctggaag ctgcagacct tgtcaaagga  
 240  
 cctcggccga aattcaccct tgatctcttt gtcttgtcca actcttgtcc ctgagaatga  
 300  
 aactgtcttc tgagagtcca tcaatgcgac gctgactcgt gagaagtgtc gaatcacgtc  
 360  
 gccattttgg agacctgcc aacgagctct ggaacctgcc aggacgcctt ccacaacacc  
 420

agaacgcagc gactttgcgt taaatccaag ctcaaacacc tcttgctcca caggcctgag  
 480  
 cataaaaagg tattctgcga cgggaaatgt aaagtctgag cttaggtgca gaggaccgcc  
 540  
 atcgatcagt gtctgatact gcttgctccgc gacttctttg ccgagcaatg ggtatagcgt  
 600  
 tttcaaccaa gtggaagcag tcgtttgctc accctggcga ttccggcgag ttagggacat  
 660  
 gaccacgtca tcgatgggat tttgc  
 685

<210> 720

<211> 161

<212> PRT

<213> Homo sapiens

<400> 720

Met	Ser	Leu	Thr	Arg	Arg	Asn	Arg	Gln	Gly	Glu	Gln	Thr	Thr	Ala	Ser
1				5				10						15	
Thr	Trp	Leu	Lys	Thr	Leu	Tyr	Pro	Leu	Leu	Gly	Lys	Glu	Val	Ala	Asp
			20					25					30		
Lys	Gln	Tyr	Gln	Thr	Leu	Ile	Asp	Gly	Gly	Thr	Leu	His	Leu	Ser	Ser
		35					40					45			
Asp	Phe	Thr	Phe	Pro	Val	Ala	Glu	Tyr	Leu	Phe	Met	Leu	Arg	Pro	Val
	50					55					60				
Glu	Gln	Glu	Val	Phe	Glu	Leu	Gly	Phe	Asn	Ala	Lys	Ser	Leu	Arg	Ser
65					70				75					80	
Gly	Val	Val	Glu	Gly	Val	Leu	Ala	Gly	Ser	Arg	Ala	Ala	Leu	Ala	Gly
			85					90					95		
Leu	Gln	Asn	Gly	Asp	Val	Ile	Gln	His	Phe	Ser	Arg	Val	Ser	Val	Ala
			100					105					110		
Leu	Met	Asp	Ser	Gln	Lys	Thr	Val	Ser	Phe	Ser	Gly	Thr	Arg	Val	Gly
		115					120					125			
Gln	Asp	Lys	Glu	Ile	Lys	Gly	Glu	Phe	Arg	Pro	Arg	Ser	Phe	Asp	Lys
	130				135						140				
Val	Cys	Ser	Phe	Gln	Ala	Val	Arg	Val	Asp	His	Ala	Thr	Ala	Phe	Ala
145				150					155					160	
Arg															

<210> 721

<211> 579

<212> DNA

<213> Homo sapiens

<400> 721

aagcttgagg tcagggtgtg gcagtggtgg gggagtggtg aggtcctgcc ctgctcacgg  
 60  
 attgcccaca ttgagcgagc ccacaagccc tacacagagg acctcaccgc ccatgtccgc  
 120  
 aggaacgctc tcagggtggc tgaagtctgg atggatgaat taaaagcca cgtctactgg  
 180  
 catggaacat accaggagga ctcaggaatt gacattgggg acatcactgc aaggaaggct  
 240

ctcaggaaac agctgcagt caagaccttc cggtggtacc tggtcagcgt gtacccagag  
 300  
 atgaggatgt actccgacat cattgcctat ggagtgtctgc agaattctct gaagactgat  
 360  
 ttgtgtcttg accagggggc agatacagag aatgtcccca tcatgtacat ctgccatggg  
 420  
 atgacgcctc agaacgtgta ctacacgagc agtcagcaga tccatgtggg cattctgagc  
 480  
 cccaccgtgg atgatgatga caaccgatgc ctggtggacg tcaacagccg gccccggctc  
 540  
 atcgaatgca gctacgcaa agccaagagg atgaagctt  
 579

<210> 722

<211> 193

<212> PRT

<213> Homo sapiens

<400> 722

Lys	Leu	Gly	Ile	Arg	Val	Trp	Gln	Cys	Gly	Gly	Ser	Val	Glu	Val	Leu
1			5						10				15		
Pro	Cys	Ser	Arg	Ile	Ala	His	Ile	Glu	Arg	Ala	His	Lys	Pro	Tyr	Thr
			20					25					30		
Glu	Asp	Leu	Thr	Ala	His	Val	Arg	Arg	Asn	Ala	Leu	Arg	Val	Ala	Glu
			35				40					45			
Val	Trp	Met	Asp	Glu	Phe	Lys	Ser	His	Val	Tyr	Trp	His	Gly	Thr	Tyr
			50			55				60					
Gln	Glu	Asp	Ser	Gly	Ile	Asp	Ile	Gly	Asp	Ile	Thr	Ala	Arg	Lys	Ala
65					70				75					80	
Leu	Arg	Lys	Gln	Leu	Gln	Cys	Lys	Thr	Phe	Arg	Trp	Tyr	Leu	Val	Ser
			85						90				95		
Val	Tyr	Pro	Glu	Met	Arg	Met	Tyr	Ser	Asp	Ile	Ile	Ala	Tyr	Gly	Val
			100					105					110		
Leu	Gln	Asn	Ser	Leu	Lys	Thr	Asp	Leu	Cys	Leu	Asp	Gln	Gly	Pro	Asp
			115				120					125			
Thr	Glu	Asn	Val	Pro	Ile	Met	Tyr	Ile	Cys	His	Gly	Met	Thr	Pro	Gln
			130			135					140				
Asn	Val	Tyr	Tyr	Thr	Ser	Ser	Gln	Gln	Ile	His	Val	Gly	Ile	Leu	Ser
145					150				155					160	
Pro	Thr	Val	Asp	Asp	Asp	Asp	Asn	Arg	Cys	Leu	Val	Asp	Val	Asn	Ser
			165					170						175	
Arg	Pro	Arg	Leu	Ile	Glu	Cys	Ser	Tyr	Ala	Lys	Ala	Lys	Arg	Met	Lys
			180					185					190		

Leu

<210> 723

<211> 384

<212> DNA

<213> Homo sapiens

<400> 723

acgcgtcctc ttacgctcag ttttgacaat gcgtgctggc agccaaccga agccgtaaaa  
 60

ctcaacgaaa tgctctcgct taaaccgtgc gaaggaaccc caccgcaatg gcgcttattc  
 120  
 cgcggaagggg attaccaaat gcgcattgat acgcgctccg gaacgcctac gctgatgctt  
 180  
 accgtacaaa gtgtaaccga caaacctggt acggacgtca ctcgacaatg tcctaaatgg  
 240  
 gacggcaagc ccctcaccct tgacgtaacg aatacattcc cggaaggctc cgtcgtacga  
 300  
 gacttctaca gcaagcaaac cgctatgggt cagcaaggta aaatcacact tcagcctgcc  
 360  
 gctaacagca atggcctgct gctg  
 384

<210> 724  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 724  
 Thr Arg Pro Leu Thr Leu Ser Phe Asp Asn Ala Cys Trp Gln Pro Thr  
 1 5 10 15  
 Glu Ala Val Lys Leu Asn Glu Met Leu Ser Leu Lys Pro Cys Glu Gly  
 20 25 30  
 Thr Pro Pro Gln Trp Arg Leu Phe Arg Glu Gly Asp Tyr Gln Met Arg  
 35 40 45  
 Ile Asp Thr Arg Ser Gly Thr Pro Thr Leu Met Leu Thr Val Gln Ser  
 50 55 60  
 Val Thr Asp Lys Pro Val Thr Asp Val Thr Arg Gln Cys Pro Lys Trp  
 65 70 75 80  
 Asp Gly Lys Pro Leu Thr Leu Asp Val Thr Asn Thr Phe Pro Glu Gly  
 85 90 95  
 Ser Val Val Arg Asp Phe Tyr Ser Lys Gln Thr Ala Met Val Gln Gln  
 100 105 110  
 Gly Lys Ile Thr Leu Gln Pro Ala Ala Asn Ser Asn Gly Leu Leu Leu  
 115 120 125

<210> 725  
 <211> 521  
 <212> DNA  
 <213> Homo sapiens

<400> 725  
 tcatgacttg ctttattgca gtggtctgga actgttggat ggaacgaatt ttatctagag  
 60  
 cctggtgaac agcttcccag gtgtgcattt agggcctcct agggatcatc aaagttttta  
 120  
 gaaaataggt ttccttcttc cacaggcatg gagaaggaag gaaattttgc actggccttt  
 180  
 gggaagctga agaagagctg gggggaggct tgttctgaca aaatagtgc tctctcctg  
 240  
 cttgaaatgt cccacagaag gctgtttctg gttcacattt gcccctctag gtccactccc  
 300  
 tccccttcat cctgctcact gccagagaga ctatgctggg agtgggtgcat cggtggtctc  
 360

caggcccttt taggctcaag gtgttcattc cctggctcct tccctgccat gtctttgttc  
 420  
 cttcctccct ccttcccatc ccagcagcca cctcctcct tccaccagac ctgggaacca  
 480  
 tcatcccaac cacaatcacc ccgtggttct attacacgcg t  
 521

<210> 726  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 726  
 Met Glu Lys Glu Gly Asn Phe Ala Leu Ala Phe Gly Lys Leu Lys Lys  
 1 5 10 15  
 Ser Trp Gly Glu Ala Cys Ser Asp Lys Ile Val Thr Leu Ser Leu Leu  
 20 25 30  
 Glu Met Ser His Arg Arg Leu Phe Leu Val His Ile Cys Pro Ser Arg  
 35 40 45  
 Ser Thr Pro Ser Pro Ser Ser Cys Ser Leu Pro Glu Arg Leu Cys Trp  
 50 55 60  
 Glu Trp Cys Ile Gly Gly Leu Gln Ala Leu Leu Gly Ser Arg Cys Ser  
 65 70 75 80  
 Phe Pro Gly Ser Phe Pro Ala Met Ser Leu Phe Leu Pro Pro Ser Phe  
 85 90 95  
 Pro Ser Gln Gln Pro Pro Ser Ser Phe His Gln Thr Trp Glu Pro Ser  
 100 105 110  
 Ser Gln Pro Gln Ser Pro Arg Gly Ser Ile Thr Arg  
 115 120

<210> 727  
 <211> 629  
 <212> DNA  
 <213> Homo sapiens

<400> 727  
 naccggtgtt cgtcccaact ccggtgtcta cgcccgacag aaccagattg gtgctccggc  
 60  
 tctgttgctt gacggcacgg tggctcagga ctgatctcg ggaaccttgg cgactcgcgg  
 120  
 tgccattatc gacgctggtg agttgaaggc tccgacgcac cgggcgtttg cgtcaatcag  
 180  
 tgccgcccgc cacgaggtcc aaggagaact cgaatgaatc cgaatgacta cctggtgctc  
 240  
 tcggcgatct tggtcgctat cggcatcgtg ggcttcctga cgaggcgtaa tgccctggtg  
 300  
 gcctttatgt cgggtggagt gatgctcaac gccgcgaacc tggcgctggt gactttcgct  
 360  
 cacgtacacg gctctctcga cggacaggtc ggggttttct tcgtgatgat cgtggcagcc  
 420  
 gctgaggtgg ttgtcggttt ggcatcctc gtcactatct tccgttcccg tcgcaccact  
 480  
 tcggtggacg acaccaacct gctgaagttc tgaggagggt accgtgactg tcttggaaac  
 540

cggcttggtc aacgtggcct ggctcatgat tgcggtgccca ctggtgggtg ccgcgctgct  
 600  
 attggtgctg ggacgccgca gcgacgcgt  
 629

<210> 728  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 728  
 Met Asn Pro Asn Asp Tyr Leu Val Leu Ser Ala Ile Leu Phe Ala Ile  
 1 5 10 15  
 Gly Ile Val Gly Phe Leu Thr Arg Arg Asn Ala Leu Val Ala Phe Met  
 20 25 30  
 Ser Val Glu Leu Met Leu Asn Ala Ala Asn Leu Ala Leu Val Thr Phe  
 35 40 45  
 Ala His Val His Gly Ser Leu Asp Gly Gln Val Gly Val Phe Phe Val  
 50 55 60  
 Met Ile Val Ala Ala Ala Glu Val Val Val Gly Leu Ala Ile Ile Val  
 65 70 75 80  
 Thr Ile Phe Arg Ser Arg Arg Thr Thr Ser Val Asp Asp Thr Asn Leu  
 85 90 95  
 Leu Lys Phe

<210> 729  
 <211> 4716  
 <212> DNA  
 <213> Homo sapiens

<400> 729  
 nnaggagaga agaaattgaa aagcaggcac ttgagaagtc taagagaagc tttaagacgt  
 60  
 ttaaggaaat gctgcaggac agggaatccc aaaatcaaaa gtctacagtt ccgtcaagaa  
 120  
 ggagaatgta ttcttttgat gatgtgctgg aggaaggaaa gcgacccctt acaatgactg  
 180  
 tgtcagaagc aagttaccag agtgagagag tagaagagaa gggagcaact tattcttcag  
 240  
 aaattcccaa agaagattct accacttttg caaaaagaga ggacccgtgt aacaactgaa  
 300  
 attcagcttc cttctcaaag tcctgtggaa gaacaaagcc cagcctcttt gtcttctctg  
 360  
 cgttcacgga gcacacaaat ggaatcaact cgtgtttcag cttctctccc cagaagttac  
 420  
 cggaaaactg atacagtcag gttaacatct gtggtcacac caagaccctt tggctctcag  
 480  
 acaaggggaa tctcatcact cccagatct tacacgatgg atgatgcttg gaagtataat  
 540  
 ggagatgttg aagacattaa gagaactcca aacaatgttg tcagcaccct tgcaccaagc  
 600  
 ccggacgcaa gccaaactggc ttcaagctta tctagccaga aagaggtagc agcaacagaa  
 660

gaagatgtga caaggctgcc ctctcctaca tcccccttct catctcttctt ccaagaccag  
720  
gctgccactt ctaaagccac attgtcttcc acatctgggc ttgatttaat gtctgaatct  
780  
ggagaagggg aaatctcccc acaaagagaa gtctcaagat cccaggatca gttcagtgat  
840  
atgagaatca gcataaacca gacgcctggg aagagtcttg actttgggtt tacaataaaa  
900  
tgggatatct ctgggatctt cgtagcatca gttgaagcag gtagcccagc agaattttct  
960  
cagctacaag tagatgatga aattattgct attaacaaca ccaagttttc atataacgat  
1020  
tcaaaagagt gggaggaagc catggctaag gctcaagaaa ctggacacct agtgatggat  
1080  
gtgaggcgct atggaaaggc tggttcacct gaaacaaagt ggattgatgc aacttctgga  
1140  
atttacaact cagaaaaatc ttcaaactta tctgtaacaa ctgatttctc cgaaagcctt  
1200  
cagagttcta atattgaatc caaagaaatc aatggaattc atgatgaaag caatgctttt  
1260  
gaatcaaaag catctgaatc ctttcttttg aaaaacttaa aaaggcgatc acaatttttt  
1320  
gaacaaggaa gctctgatcc ggtggttcct gatcttccag ttccaaccat cagtcccccg  
1380  
agtcgctggg tgtgggatca agaggaggag cggaagcggc aggagagggtg gcagaaggag  
1440  
caggaccgcc tactgcagga aaaatatcaa cgtgagcagg agaaactgag ggaagagtgg  
1500  
caaagggcca aacaggaggc agagagagag aattccaagt acttgatga ggaactgatg  
1560  
gtcctaagct caaacagcat gtctctgacc acacgggagc cctctcttgc cacctgggaa  
1620  
gctacctgga gtgaagggtc caagtcttca gacagagaag gaacccgagc aggagaagag  
1680  
gagaggagac agccacaaga ggaagtgtgt catgaggacc aaggaaagaa gccgcaggat  
1740  
cagcttggtt ttgagagaga gaggaaatgg gagcaacagc ttcaggaaga gcaagagcaa  
1800  
aagcggcttc aggctgaggc tgaggagcag aagcgtcctg cggaggagca gaagcgccag  
1860  
gcagagatag agcgggaaac atcagtcaga atataccagt acaggaggcc tgttgattcc  
1920  
tatgatatac caaagacaga agaagcatct tcaggttttc ttcttggtga caggaataaa  
1980  
tccagatcta ctactgaact ggatgattac tccacaaata aaaatggaaa caataaatat  
2040  
ttagacaaa ttgggaacac gacctcttca cagaggagat ccaagaaaga acaagtacca  
2100  
tcaggagcag aattggagag gcaacaaatc cttcaggaaa tgaggaagag aacacccctt  
2160  
cacaatgaca acagctggat ccgacagcgc agtgccagtg tcaacaaaga gcctgttagt  
2220  
cttcctggga tcatgagaag aggcgaatct ttagataacc tggactcccc ccgatccaat  
2280



tcttgagac agcctccttg gctcaatcag cccacaggat tctatgcttc ttcctctgtg  
2340  
caagacttta gtcgcccacc acctcagctg gtgtccacat caaacctgtc ctacatgcgg  
2400  
aaccctcct ccagcgtgcc cccaccttca gctggctccg tgaagacctc caccacaggt  
2460  
gtggccacca cacagtcccc caccctcgaga agccattccc cttcagcttc acagtcaggc  
2520  
tctcagctgc gtaacaggtc agtcagtggg aagcgcatat gtcctactg caataacatt  
2580  
ctgggcaaag gagccgcat gatcatcgag tccctgggtc tttgttatca tttgcattgt  
2640  
tttaagtgtg ttgcctgtga gtgtgacctc ggaggctctt cctcaggagc tgaagtcagg  
2700  
atcagaaacc accaactgta ctgcaacgac tgctatctca gattcaaate tggacggcca  
2760  
accgcatgt gatgtaagcc tccatacgaa agcactgttg cagatagaag aagaggtggt  
2820  
tgctgctcat gtagatctat aaatatgtgt tgtatgtctt ttttgccttt ttttttaaaa  
2880  
aaaagaataa ctttttttgc ctcttttagat tacatagaag cattgtagtc ttggtagaac  
2940  
cagtattttt gttgtttatt tataaggtaa ttgtgtgtgg ggaaaagtgc agtatttacc  
3000  
tgttgaattc agcatcttga gagcacaagg gaaaaaataa gaacctacga atatttttga  
3060  
ggcagataat gatctagttt gactttctag ttagtggtgt tttgaagagg gtattttatt  
3120  
gttttttaaa aaaagggtct taaacattat ttgaaatagt taatataaat acataattgc  
3180  
atttgctctg tttattgtaa tgtattctaa attaatgcag aaccatattg aaaatttcat  
3240  
taaaatctat ccccaaattg gctttctgta tccctccttc tacctattat tctgattttt  
3300  
aaaaatgcag ttaatgtacc atttatttgc ttgatgaagg gagctctatt ttctttacca  
3360  
gaaatgttgc taagtaattc ccaatagaaa gctgcttatt ttcattaatg aaaaataacc  
3420  
atgggttgta tactagaagt cttcttcaga aactgggtgag cttttctggt caattgcatt  
3480  
tgtaaataaa cttgctgatg catttaacga gtgggtcgtc tttttcttag gtgtatgtgt  
3540  
ctgacctcag gccttttagc catatttcag tatgtggcct tttttgatgt tatgttttat  
3600  
ccagtagctt tactaaggta taattgatgt aataaactgc atatatataa agtgtatact  
3660  
ttgacaaatt ttgacatggt gtataccttc gaaactatgc cacagtctgg atgtgtttac  
3720  
tgaaacattt taataaggaa gtttattttt gataaagtta tgtttttgga tacaatatat  
3780  
ttgtatggtg agagtgatga attgttggat catttgaata aaatctttta ctaaccccat  
3840  
gataaaagga gaagacaaca gtgagcttag aatatctata aagcaaaaaa tgtagtctct  
3900

tgtttaaaaa atctggagcg ggaatgcaag gatacaaaac tttagcatgc tttgagcaaa  
 3960  
 aatttaaact tactggaatc ttttataata atgtaagtgg aatggaggat tctaggaact  
 4020  
 gagaactgta ttggaatagg ttcaaaatat gtaagaaatg ctaatgtggg agataaaaat  
 4080  
 tttatttagt acttattctg attattatta aagtaataat gtgttccttg aggataactt  
 4140  
 gtcaaatgcc ccaaagcata aagaatataa ttctgaatcc caaattccaa agacaagaac  
 4200  
 tctgtgtttg aattcattct gcatataatt atttataagt atagattgtg aatttttcca  
 4260  
 tgttcttaaa attattttta tcttttttca tggttgcata gtgctccatt gtttggcctt  
 4320  
 ggtaatatat agttgataat tccattactg tgtatttttc acttgtttct aagatcaaac  
 4380  
 attttaatat gtgcatgtta tatataaata tgtaaattct gtgatactct atgatcatct  
 4440  
 ctttctttat attattttca tagacatgaa atagttgctc agagattatg cattttaaga  
 4500  
 cactcatagt atatattgcc aaagtgggtt ccagaaaggc actgctggct tcgactccta  
 4560  
 taagcagcac gtgggcttgt tcatctcact gcatgtttat gaagatacag ttcttttgcc  
 4620  
 ttgttctctg cctgatgtgt atgcagaggc agccctcaat atgcagtggg tgaataaatg  
 4680  
 aatgaagaaa ccactatcaa aaaaaaaaaa aaaaaa  
 4716

<210> 730

<211> 797

<212> PRT

<213> Homo sapiens

<400> 730

Met	Glu	Ser	Thr	Arg	Val	Ser	Ala	Ser	Leu	Pro	Arg	Ser	Tyr	Arg	Lys
1				5					10					15	
Thr	Asp	Thr	Val	Arg	Leu	Thr	Ser	Val	Val	Thr	Pro	Arg	Pro	Phe	Gly
			20					25					30		
Ser	Gln	Thr	Arg	Gly	Ile	Ser	Ser	Leu	Pro	Arg	Ser	Tyr	Thr	Met	Asp
		35					40					45			
Asp	Ala	Trp	Lys	Tyr	Asn	Gly	Asp	Val	Glu	Asp	Ile	Lys	Arg	Thr	Pro
	50					55				60					
Asn	Asn	Val	Val	Ser	Thr	Pro	Ala	Pro	Ser	Pro	Asp	Ala	Ser	Gln	Leu
65					70					75				80	
Ala	Ser	Ser	Leu	Ser	Ser	Gln	Lys	Glu	Val	Ala	Ala	Thr	Glu	Glu	Asp
			85						90				95		
Val	Thr	Arg	Leu	Pro	Ser	Pro	Thr	Ser	Pro	Phe	Ser	Ser	Leu	Ser	Gln
			100					105					110		
Asp	Gln	Ala	Ala	Thr	Ser	Lys	Ala	Thr	Leu	Ser	Ser	Thr	Ser	Gly	Leu
		115					120					125			
Asp	Leu	Met	Ser	Glu	Ser	Gly	Glu	Gly	Glu	Ile	Ser	Pro	Gln	Arg	Glu
	130					135						140			
Val	Ser	Arg	Ser	Gln	Asp	Gln	Phe	Ser	Asp	Met	Arg	Ile	Ser	Ile	Asn

145					150					155				160
Gln	Thr	Pro	Gly	Lys	Ser	Leu	Asp	Phe	Gly	Phe	Thr	Ile	Lys	Trp
				165					170					175
Ile	Pro	Gly	Ile	Phe	Val	Ala	Ser	Val	Glu	Ala	Gly	Ser	Pro	Ala
			180					185					190	
Phe	Ser	Gln	Leu	Gln	Val	Asp	Asp	Glu	Ile	Ile	Ala	Ile	Asn	Asn
		195				200						205		
Lys	Phe	Ser	Tyr	Asn	Asp	Ser	Lys	Glu	Trp	Glu	Glu	Ala	Met	Ala
	210				215					220				
Ala	Gln	Glu	Thr	Gly	His	Leu	Val	Met	Asp	Val	Arg	Arg	Tyr	Gly
225					230				235					240
Ala	Gly	Ser	Pro	Glu	Thr	Lys	Trp	Ile	Asp	Ala	Thr	Ser	Gly	Ile
			245					250					255	
Asn	Ser	Glu	Lys	Ser	Ser	Asn	Leu	Ser	Val	Thr	Thr	Asp	Phe	Ser
		260						265				270		
Ser	Leu	Gln	Ser	Ser	Asn	Ile	Glu	Ser	Lys	Glu	Ile	Asn	Gly	Ile
	275					280					285			
Asp	Glu	Ser	Asn	Ala	Phe	Glu	Ser	Lys	Ala	Ser	Glu	Ser	Ile	Ser
	290				295						300			
Lys	Asn	Leu	Lys	Arg	Arg	Ser	Gln	Phe	Phe	Glu	Gln	Gly	Ser	Ser
305					310				315					320
Ser	Val	Val	Pro	Asp	Leu	Pro	Val	Pro	Thr	Ile	Ser	Ala	Pro	Ser
			325					330					335	
Trp	Val	Trp	Asp	Gln	Glu	Glu	Glu	Arg	Lys	Arg	Gln	Glu	Arg	Trp
		340						345				350		
Lys	Glu	Gln	Asp	Arg	Leu	Leu	Gln	Glu	Lys	Tyr	Gln	Arg	Glu	Gln
	355					360					365			
Lys	Leu	Arg	Glu	Glu	Trp	Gln	Arg	Ala	Lys	Gln	Glu	Ala	Glu	Arg
	370				375						380			
Asn	Ser	Lys	Tyr	Leu	Asp	Glu	Glu	Leu	Met	Val	Leu	Ser	Ser	Asn
385				390					395					400
Met	Ser	Leu	Thr	Thr	Arg	Glu	Pro	Ser	Leu	Ala	Thr	Trp	Glu	Ala
			405					410					415	
Trp	Ser	Glu	Gly	Ser	Lys	Ser	Ser	Asp	Arg	Glu	Gly	Thr	Arg	Ala
		420					425					430		
Glu	Glu	Glu	Arg	Arg	Gln	Pro	Gln	Glu	Glu	Val	Val	His	Glu	Asp
	435					440						445		
Gly	Lys	Lys	Pro	Gln	Asp	Gln	Leu	Val	Ile	Glu	Arg	Glu	Arg	Lys
	450				455					460				
Glu	Gln	Gln	Leu	Gln	Glu	Gln	Glu	Gln	Lys	Arg	Leu	Gln	Ala	Glu
465				470					475					480
Ala	Glu	Glu	Gln	Lys	Arg	Pro	Ala	Glu	Glu	Gln	Lys	Arg	Gln	Ala
			485					490					495	
Ile	Glu	Arg	Glu	Thr	Ser	Val	Arg	Ile	Tyr	Gln	Tyr	Arg	Arg	Pro
	500							505				510		
Asp	Ser	Tyr	Asp	Ile	Pro	Lys	Thr	Glu	Glu	Ala	Ser	Ser	Gly	Phe
	515						520					525		
Pro	Gly	Asp	Arg	Asn	Lys	Ser	Arg	Ser	Thr	Thr	Glu	Leu	Asp	Asp
	530				535						540			
Ser	Thr	Asn	Lys	Asn	Gly	Asn	Asn	Lys	Tyr	Leu	Asp	Gln	Ile	Gly
545				550					555					560
Thr	Thr	Ser	Ser	Gln	Arg	Arg	Ser	Lys	Lys	Glu	Gln	Val	Pro	Ser
			565					570					575	
Ala	Glu	Leu	Glu	Arg	Gln	Gln	Ile	Leu	Gln	Glu	Met	Arg	Lys	Arg

580 585 590  
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val  
 595 600 605  
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser  
 610 615 620  
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro  
 625 630 635 640  
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp  
 645 650 655  
 Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr  
 660 665 670  
 Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val  
 675 680 685  
 Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg  
 690 695 700  
 Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Arg  
 705 710 715 720  
 Ser Val Ser Gly Lys Arg Ile Cys Ser Tyr Cys Asn Asn Ile Leu Gly  
 725 730 735  
 Lys Gly Ala Ala Met Ile Ile Glu Ser Leu Gly Leu Cys Tyr His Leu  
 740 745 750  
 His Cys Phe Lys Cys Val Ala Cys Glu Cys Asp Leu Gly Gly Ser Ser  
 755 760 765  
 Ser Gly Ala Glu Val Arg Ile Arg Asn His Gln Leu Tyr Cys Asn Asp  
 770 775 780  
 Cys Tyr Leu Arg Phe Lys Ser Gly Arg Pro Thr Ala Met  
 785 790 795

<210> 731  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

<400> 731  
 tcgcgagcac actccagcct ctgcttttct cagtggcttg gccagaacag aatttgttct  
 60  
 actcgaatga cccagattc cctccaagaa cttccctcct ctcattcagc ttctctggat  
 120  
 tcttcaaagt actgactggg gaaacagatt gttggaaaaa cactttcggg ttgcctcgat  
 180  
 ggggtcaata ccttatcagg ccacaggaaa gacaaaggaa aatgcttcct gctggagcat  
 240  
 gtgcacatat gttgttcctt taactccaaa tacgtatgca ggggtggtgg taggatcaga  
 300  
 aaatgtgtga tcagaaagt accagttccc caccattttg tgtgggtttt attttctttc  
 360  
 tgctccgtgt tgactctttt cccacaaca cggaagctgc ttaatccaaa gacttgacc  
 420  
 atttcattct gtttcagatc cattccaaca aaatgatcag ttggtggctt atgtaaaaag  
 480  
 cagctccatg actacattta aatattgact agt  
 513

<210> 732

<211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 732  
 Met Asp Leu Lys Gln Asn Glu Met Val Gln Val Phe Gly Leu Ser Ser  
 1 5 10 15  
 Phe Arg Val Val Gly Lys Arg Val Asn Thr Glu Gln Lys Glu Asn Lys  
 20 25 30  
 Thr His Thr Lys Trp Trp Gly Thr Gly His Phe Leu Ile Thr His Phe  
 35 40 45  
 Leu Ile Leu Pro Pro Pro Leu His Thr Tyr Leu Glu Leu Lys Glu Gln  
 50 55 60  
 His Met Cys Thr Cys Ser Ser Arg Lys His Phe Pro Leu Ser Phe Leu  
 65 70 75 80  
 Trp Pro Asp Lys Val Leu Thr Pro Ser Arg Gln Pro Glu Ser Val Phe  
 85 90 95  
 Pro Thr Ile Cys Phe Pro Ser Gln Ser Phe Glu Glu Ser Arg Glu Ala  
 100 105 110  
 Glu

<210> 733  
 <211> 4366  
 <212> DNA  
 <213> Homo sapiens

<400> 733  
 nttttaacaa aaaaaatata ttaataaaaa agttcaaaaa agggggggga ttgtcatctc  
 60  
 ctttgggggtg cgatggcttc aaatccaaac tgaggctctc cgggtggtaa ggatgtgcga  
 120  
 ggaggcctct tgaagaactc caggcctatc atgctgtctc tccgctaaag cctgaggccc  
 180  
 gaggtcagag gattcaggaa ggctctgcag tcggcccagg agggcggggg cccgtgggtg  
 240  
 aggcggggag agggaaggac cgcacggagc accaaccct gtcggcccc gtaccaggaa  
 300  
 gcgctggggg gcagaggagc ggagttgagg cagaagccag gtgaggctgg agtcctgggg  
 360  
 taggcaggct gtcgctgccg ccgcccgtgc ctgagatgga aatcggggga ggaagctcgc  
 420  
 ggaagaaaca gcggagggtt cgtggaaaaa aaagcaatgg ctgagctaag ggatggggta  
 480  
 ccaggttagg gggaggaaac ggtagagaga aatagggtgg gctcccgcgc atgctcaata  
 540  
 gggaaggggc gcccgtgggg tcgggacgca tcgtagtggt gcttctcggg cgggtgggggtg  
 600  
 ggcgcggaat ttggagacc acttcgggaa aggtaaaatg cgggcgcaat tttagggtac  
 660  
 ctgtgggacc cgggtcttta gggctctgac acaggacggg cctgggcccga aagcccaggc  
 720  
 acgcccgacc agagagtgtt tctccactcc cggactctgc cagtcaggat ggtggtgcct  
 780

tcgctgaagc ttcaggacct catcgaagag attcgcgggg ccaagactca ggcccaggag  
 840  
 cgggagggtga tccaaaagga gtgtgcccac atccgggcct ccttccgcga cggggaccca  
 900  
 gtgcacaggc accggcagct ggccaaactg ctctacgtcc acatgttggg ctaccccgcc  
 960  
 cactttggac agatggagtg cctgaaactg atcgccctct ccagattcac agacaagagg  
 1020  
 gtgggctacc tgggggcat gcttctattg gatgagaggc acgatgccca cctgctcatt  
 1080  
 accaacagca tcaagaatga cctgagccag gggattcagc cagtacaagg cctggccttg  
 1140  
 tgcactttga gcacatggg ctctgctgag atgtgccgag acctggcccc agagggtggag  
 1200  
 aaactgctcc tgcagcccag tccctacgtg cgcaagaagg ctattctgac tgcagtgcac  
 1260  
 atgatccgga aggtccctga actctccagt gtcttctctc caccctgtgc ccaactgctt  
 1320  
 catgagcgtc accatggcat cctgctgggc accatcacgc tgatcacgga gctctgcgaa  
 1380  
 cgaagccctg cagccctcag gcacttccga aagggtgtac cccagctggt acacatcctc  
 1440  
 cggactctgg tgacaatggg atactccaca gaacacagca tatctggagt cagcgacccc  
 1500  
 ttctgcagg tccagatact tcgtctgctt cggatcctgg gccggaacca cgaggagagc  
 1560  
 agtgagacca tgaatgactt gctggcccag gtggccacta acacggacac cagccgaaat  
 1620  
 gccggaatg cggctctgtt tgagacagta ctacccatca tggatatccg ctctgcagct  
 1680  
 ggcctacggg ttctagctgt caacattctt ggtcgcttcc tactcaacag tgacaggaac  
 1740  
 attaggtatg tagccctgac atcactgctt cgactgggtgc agtctgatca cagtgtgtg  
 1800  
 cagcggcatc ggcccactgt ggtggaatgt ctacgggaaa ctgatgcctc cctcagccgg  
 1860  
 tgagccctgg aactaagcct ggctctggta aatagctcca atgtgcgagc catgatgcaa  
 1920  
 gagctgcagg cctttctgga gtctgacct cctgacctac gggctgactg tgccctcaggc  
 1980  
 atcctgctgg ctgcagagag gtttgctcca accaaacgct ggcacataga caccatcctg  
 2040  
 catgtgctga caacggcggg caccatgtg cgggatgatg cagtggccaa cctgaccag  
 2100  
 ctgattgggg gggcccagga gctacatgcc tactctgtgc gccgcctcta caatgccctg  
 2160  
 gcagaagaca tttcccagca accactggtg cagggtggcag cctggtgcat tggggagtat  
 2220  
 ggggacctcc tgctggcagg gaactgcgag gagattgagc cccttcaggc ggacgaagag  
 2280  
 gaagtgtggt cattgctgga aaagggtgtg cagtcccaca tgtccctgcc agccactcga  
 2340  
 ggatatgcc tcacagccct catgaagctc agcactcgcc tctgtgggga caacaaccgc  
 2400

atccgccagg tgggtgccat ctacgggagc tgcttggacg tggagctgca gcagcgggct  
2460  
gtggagtatg acacactctt ccggaaatac gaccacatga gggctgccat cctggaaaaa  
2520  
atgcctcttg tggagcgaga tggccctcag gctgatgagg aagcaaagga aagcaaagaa  
2580  
gcagcccagc tttcagaagc agccccagtg cccacagagc cccaggcctc acagctcctg  
2640  
gatctgctag atctcctgga tggggcttct ggggatgtcc agcatcctcc ccatctggac  
2700  
ccctccccag gaggtgccct ggtacacctg cttgaccttc cctgtgtacc tccaccccc  
2760  
gctcccatcc cagatctcaa agtgtttgag cgtgagggag tacagctgaa tctgtctttc  
2820  
attcgacccc ctgaaaaccc tgctttgctg ttaatcacca tcaactgccac caactttctc  
2880  
gagggatgatg tcaaccattt catctgccag gctgctgtgc ccaagagtct ccagctgcag  
2940  
ctgcaggccc ccagtgggaa cacagttcca gctcggggtg gccttcctat caccagctc  
3000  
ttcagaatcc tcaatcctaa caaggccccc ctgcggctaa agctgcgcct cacctacgac  
3060  
cactttcacc agtcgggtgca ggagatcttt gaggtgaaca acttgccctgt ggaatcgtgg  
3120  
cagtaactgt ctccactcac agcctgaaat tctcctgtgt cccaaacccc agggggcccc  
3180  
agcagcttcg aacctacacc tgagggttac cagcaggtgg cgctctggct ttgcactgca  
3240  
aaaactgggg accagcccc ttctcccaca aataaagccc aataaagcct gagaagtgag  
3300  
gaaagccata tttgggtata tttgaagtgg aaagtgtgta tgaataacag caagggaaga  
3360  
gcattcttac ataggaggta tgcattctcc cctgagcctt gagaacctgt ctcaacacgg  
3420  
gggcggggag ggggcagctg ttggttcttt ctaacctctc ccaggtcagg gaacaaattt  
3480  
gcccctaaac ttccacagga ggcactctac cctctgggcc agagctgggc acagtggcaa  
3540  
agtcagatta gaatttctag agttctaaca gcgattocca accatttcct caacttttct  
3600  
tctgtttccc acatcccaag gcagggaaat ccctgctgcc tctcctcatc ttctaactca  
3660  
gctgtaaggc ggtttaggag ccgctggcag aatcaatggc atcgaccaag ggaggggggg  
3720  
tggcaaggga ttttctgtg cttaactact gatcacggct aagtggaaat cctataaaca  
3780  
cgagcggaaa tcaatggagg ctgcttagcg gccaggggag aggggcggcc cacagattgc  
3840  
atctgacgga tgagcgagag gaagcagcca gggagggctc aaggaagagt agcttagagg  
3900  
agggggaaga aacaggcagc gctggagaga gaggagtcac tgtcagaagg gacactgagg  
3960  
ggagaggcac agtgggcccc ggagtggact ccgttagacc cagagttccc tcccccttct  
4020

aggaagtgac acccctagcc caggcagtggt tcaggatctt cagtctcctg tggcctctct  
 4080  
 ctggagctgt tcacttctag caggcgctga tagtcttgag gccggaaacg ctgtagatac  
 4140  
 acaatcagct tggctggtgc tgtctcctgt gcaggcacac ctcaaagccc gagagtctcc  
 4200  
 tcgctgggacc cacagagggg gaaggagacc caccgcatat actcgcgagg aatgccggga  
 4260  
 gcagttccgg atccccgacc tcggcccgac cctccgcgcg cccggcaggt cccggcacca  
 4320  
 gcggccatat tacgcccgtt gtggcggtgc cgagagcagg ccaggc  
 4366

<210> 734

<211> 364

<212> PRT

<213> Homo sapiens

<400> 734

Met	Val	Val	Pro	Ser	Leu	Lys	Leu	Gln	Asp	Leu	Ile	Glu	Glu	Ile	Arg
1				5					10					15	
Gly	Ala	Lys	Thr	Gln	Ala	Gln	Glu	Arg	Glu	Val	Ile	Gln	Lys	Glu	Cys
			20					25					30		
Ala	His	Ile	Arg	Ala	Ser	Phe	Arg	Asp	Gly	Asp	Pro	Val	His	Arg	His
		35					40					45			
Arg	Gln	Leu	Ala	Lys	Leu	Leu	Tyr	Val	His	Met	Leu	Gly	Tyr	Pro	Ala
		50				55					60				
His	Phe	Gly	Gln	Met	Glu	Cys	Leu	Lys	Leu	Ile	Ala	Ser	Ser	Arg	Phe
65					70					75				80	
Thr	Asp	Lys	Arg	Val	Gly	Tyr	Leu	Gly	Ala	Met	Leu	Leu	Leu	Asp	Glu
			85						90					95	
Arg	His	Asp	Ala	His	Leu	Leu	Ile	Thr	Asn	Ser	Ile	Lys	Asn	Asp	Leu
			100					105					110		
Ser	Gln	Gly	Ile	Gln	Pro	Val	Gln	Gly	Leu	Ala	Leu	Cys	Thr	Leu	Ser
		115					120					125			
Thr	Met	Gly	Ser	Ala	Glu	Met	Cys	Arg	Asp	Leu	Ala	Pro	Glu	Val	Glu
		130				135					140				
Lys	Leu	Leu	Leu	Gln	Pro	Ser	Pro	Tyr	Val	Arg	Lys	Lys	Ala	Ile	Leu
145				150						155				160	
Thr	Ala	Val	His	Met	Ile	Arg	Lys	Val	Pro	Glu	Leu	Ser	Ser	Val	Phe
			165						170					175	
Leu	Pro	Pro	Cys	Ala	Gln	Leu	Leu	His	Glu	Arg	His	His	Gly	Ile	Leu
		180						185					190		
Leu	Gly	Thr	Ile	Thr	Leu	Ile	Thr	Glu	Leu	Cys	Glu	Arg	Ser	Pro	Ala
		195				200					205				
Ala	Leu	Arg	His	Phe	Arg	Lys	Val	Val	Pro	Gln	Leu	Val	His	Ile	Leu
		210				215					220				
Arg	Thr	Leu	Val	Thr	Met	Gly	Tyr	Ser	Thr	Glu	His	Ser	Ile	Ser	Gly
225				230						235				240	
Val	Ser	Asp	Pro	Phe	Leu	Gln	Val	Gln	Ile	Leu	Arg	Leu	Leu	Arg	Ile
			245						250					255	
Leu	Gly	Arg	Asn	His	Glu	Glu	Ser	Ser	Glu	Thr	Met	Asn	Asp	Leu	Leu
		260						265				270			
Ala	Gln	Val	Ala	Thr	Asn	Thr	Asp	Thr	Ser	Arg	Asn	Ala	Gly	Asn	Ala



275	280	285
Val Leu Phe Glu Thr	Val Leu Thr Ile Met Asp	Ile Arg Ser Ala Ala
290	295	300
Gly Leu Arg Val Leu Ala	Val Asn Ile Leu Gly Arg	Phe Leu Leu Asn
305	310	315
Ser Asp Arg Asn Ile Arg Tyr	Val Ala Leu Thr Ser	Leu Leu Arg Leu
325	330	335
Val Gln Ser Asp His Ser Ala	Val Gln Arg His Arg	Pro Thr Val Val
340	345	350
Glu Cys Leu Arg Glu Thr Asp	Ala Ser Leu Ser Arg	
355	360	

&lt;210&gt; 735

&lt;211&gt; 597

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 735

gtcgactagc caaaccgccc gggaaagtct tgtaccaccg atcctgggtt atgcggatct  
60  
catcgccacc atggactcgc gcaatctgga aaccgccaac cttattccag aaaaaataat  
120  
tgcttggtgt cctcgatccc gctctgaccg cccactggac cgctcaaccc aggacatcct  
180  
cagtgccatc cagcagctgg ctgcaccgct ggcactacc atcttcgtgg tgggtgccac  
240  
agcgcgcgac attctgctga cacacgtgtt cggtatcgag accggacgtg ccacgctcga  
300  
cgtggatttc gccgttgccg tagaacattg gccgcagttc gaaaacatca agcagcacct  
360  
gtagccaac gaccatttcg actctgccgc cagcatcacc catcgactgc tctatcgcac  
420  
gagcgacaac acgatcgccc ggccaatcga tctcatccca ttcggcgcca tcgaacagcc  
480  
gccagccacc atcaaattggc cgcccgacat ggctgtcatg atgaatgttg ctggctacgc  
540  
agatgcctgg cgggccgcag tcgaagtaga gtttgtgccc gggcgagca tacgcgt  
597

&lt;210&gt; 736

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 736

Met Asp Ser Arg Asn Leu Glu Thr Ala Asn Leu Ile Pro Glu Lys Ile
1 5 10 15
Ile Ala Trp Cys Pro Arg Ser Arg Ser Asp Arg Pro Leu Asp Arg Ser
20 25 30
Thr Gln Asp Ile Leu Ser Ala Ile His Asp Val Ala Ala Pro Leu Ala
35 40 45
Leu Pro Ile Phe Val Val Gly Ala Thr Ala Arg Asp Ile Leu Leu Thr
50 55 60
His Val Phe Gly Ile Glu Thr Gly Arg Ala Thr Leu Asp Val Asp Phe

```

65              70              75              80
Ala Val Ala Val Glu His Trp Pro Gln Phe Glu Asn Ile Lys Gln His
              85              90              95
Leu Leu Ala Asn Asp His Phe Asp Ser Ala Ala Ser Ile Thr His Arg
              100             105             110
Leu Leu Tyr Arg Thr Ser Asp Asn Thr Ile Ala Arg Pro Ile Asp Leu
              115             120             125
Ile Pro Phe Gly Gly Ile Glu Gln Pro Pro Ala Thr Ile Lys Trp Pro
              130             135             140
Pro Asp Met Ala Val Met Met Asn Val Ala Gly Tyr Ala Asp Ala Trp
145              150              155              160
Arg Ala Ala Val Glu Val Glu Phe Val Pro Gly Arg Ser Ile Arg
              165              170              175

```

<210> 737  
 <211> 497  
 <212> DNA  
 <213> Homo sapiens

```

<400> 737
ntgcgcctgg ccaattccgg cgccatcctc gggcacgatac tggggaaaac ctccatggtg
60
cgcgccggca tcgttgggta cggatacgat cccaaccctc acgccgaccg tgccgaccta
120
caccctgccc tgtcctggat cagccacgta accttcgtta aaactgtcag tgtgggggat
180
accatcggtt acggcagaac atggacagcc agcgaaacga caaaaatcgc caccgtccca
240
gtcggttacg ccgacggact gtcccgagga ctgtcaaata aaggacacgt tctcattaga
300
gggtccgttc atcccatcgt cggtcggatac tgcattggacc aattcatggt cgatcttggc
360
cccgaattcga acgtcacggt gggagatgag gtggtgctca ttggaacca ggaggacgaa
420
actctgaccg ctgatgacat ggccgaactc ctcggaacca ttagctacga gatcacttgc
480
gccatttcca aacgcgt
497

```

<210> 738  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

```

<400> 738
Xaa Arg Leu Ala Asn Ser Gly Ala Ile Leu Gly His Asp Leu Gly Lys
1              5              10              15
Thr Ser Met Val Arg Ala Gly Ile Val Gly Tyr Gly Tyr Asp Pro Asn
              20              25              30
Pro His Ala Asp Arg Ala Asp Leu His Pro Ala Leu Ser Trp Ile Ser
              35              40              45
His Val Thr Phe Val Lys Thr Val Ser Val Gly Asp Thr Ile Gly Tyr
              50              55              60
Gly Arg Thr Trp Thr Ala Ser Glu Thr Thr Lys Ile Ala Thr Val Pro

```

```

65          70          75          80
Val Gly Tyr Ala Asp Gly Leu Ser Arg Gly Leu Ser Asn Lys Gly His
          85          90          95
Val Leu Ile Arg Gly Ser Val His Pro Ile Val Gly Arg Ile Cys Met
          100          105          110
Asp Gln Phe Met Val Asp Leu Gly Pro Asp Ser Asn Val Thr Val Gly
          115          120          125
Asp Glu Val Val Leu Ile Gly Thr Gln Glu Asp Glu Thr Leu Thr Ala
          130          135          140
Asp Asp Met Ala Glu Leu Leu Gly Thr Ile Ser Tyr Glu Ile Thr Cys
145          150          155          160
Ala Ile Ser Lys Arg
          165

```

&lt;210&gt; 739

&lt;211&gt; 438

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 739

```

cggctgcggg aagagcgggc gcacgcgctc aagaccaagg aaaagctggc acagaccgcc
60
acggcctcat cagcagctgt gggctcaggc ccccctcccg aggcggagca ggcgtggccg
120
cagagcagcg gggaggagga gctgcagctc cagctggccc tggccatgag caaggaggag
180
gccgaccagc ccccgctctg cggccccgag gacgacgccc agctccagct ggcccttagt
240
ttgagccgag aagagcatga taaggaggag cggatccgct gcggggatga cctgcccgtg
300
cagatggcaa tgcaggagag caagagggag actgggggca aggaggagtc gtcctcatg
360
gaccttgctg acgtcttcac gccccagct cctgccccga ccacagaccc ctggggggggc
420
ccagcaccca tggctgct
438

```

&lt;210&gt; 740

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 740

```

Arg Leu Arg Glu Glu Arg Ala His Ala Leu Lys Thr Lys Glu Lys Leu
1          5          10          15
Ala Gln Thr Ala Thr Ala Ser Ser Ala Ala Val Gly Ser Gly Pro Pro
          20          25          30
Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu Glu Leu
          35          40          45
Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp Gln Pro
          50          55          60
Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln Leu Gln Leu Ala Leu Ser
65          70          75          80
Leu Ser Arg Glu Glu His Asp Lys Glu Glu Arg Ile Arg Arg Gly Asp

```

```

<400> 742
Ala Ser Leu Arg Pro Arg Cys Cys Lys Asp Val Ala Thr Val Arg Lys
 1             5             10             15
Asn Glu Tyr Val Asn Leu Pro Val Ile Cys Leu Val Gly Pro Thr Ala
 20             25             30
Ser Gly Lys Ser Gly Leu Ala Val Arg Val Cys Arg Arg Leu Tyr Val

```

```

      35              40              45
Asp Glu His Pro Ala Glu Ile Ile Asn Thr Asp Ser Met Val Val Tyr
      50              55              60
Arg Gly Met Asp Ile Gly Thr Ala Thr Pro Thr Leu Arg Glu Gln Arg
65              70              75              80
Thr Val Val His His Leu Val Ser Ile Leu Asp Val Thr Val Pro Ser
      85              90              95
Ser Leu Val Leu Met Gln Thr Leu Ala Arg Asp Ala Val Glu Asp Cys
      100             105             110
Leu Ser Arg Gly Val Ile Pro Val Leu Val Gly Gly Ser Ala Leu Tyr
      115             120             125
Thr Lys Ala Ile Ile Asp Glu Met Ser Ile Pro Pro Thr Asp Pro Glu
      130             135             140
Val Arg Ala Arg Trp Gln Glu Lys Leu Asp Ala Glu Gly Pro Arg Val
145             150             155             160
Leu His Asp Glu Leu Ala Arg Arg Asp Pro Lys Ala Ala Glu Ser Ile
      165             170             175
Leu Pro Gly Asn Gly Arg Arg Ile Val Ser Cys Pro Arg Ser Leu Leu
      180             185             190
Thr Leu Thr Gly Ser Phe Thr Ala Thr Asp Pro Arg Arg Asp Pro Pro
      195             200             205
Leu Ala Lys Thr Val Gln Met Gly Leu Glu Leu Ser Arg Lys Asp Ile
      210             215             220
Asp Gln Arg Ile Ala Asp Arg Val Asp Gln Met Trp Ala Tyr Gly Phe
225             230             235             240
Val Asp

```

&lt;210&gt; 743

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 743

```

naaaaaagtg atggtttcgg atctgtggcc agtcgtcttg caagaaatca ttatgacgtg
60
gatgaggggca acagcancat tcatgttaat caagacattg cgcgcagaac agggacggga
120
aagctattgg tacgagtgtg cccggcgcac gtgtactcag aggagcccga tggcactatt
180
tccgtggagt acgcagcgtg tctggagtgt ggcacttgtc tggcgggtgc tgcgccaggg
240
tcgcttgaat ggcactatcc cgcaggtgca atgggtatctt cggttcagaga aggatgaagt
300
ccttggtgggc gactgtaaag cgacatggcc gtcgctcggt aggaggaatt gtggtgtccg
360
caccaaatag tgctcaggat gaagtctgtc atggaaatcc gggtccaacc gtttcgggag
420
ctgggtcgga
430

```

&lt;210&gt; 744

&lt;211&gt; 98

&lt;212&gt; PRT

<213> Homo sapiens

<400> 744

```

Xaa Lys Ser Asp Gly Phe Gly Ser Val Ala Ser Arg Leu Ala Arg Asn
 1           5           10           15
His Tyr Asp Val Asp Glu Gly Asn Ser Xaa Ile His Val Asn Gln Asp
          20           25           30
Ile Ala Arg Arg Thr Gly Thr Gly Lys Leu Leu Val Arg Val Cys Pro
          35           40           45
Ala His Val Tyr Ser Glu Glu Pro Asp Gly Thr Ile Ser Val Glu Tyr
          50           55           60
Ala Ala Cys Leu Glu Cys Gly Thr Cys Leu Ala Val Ala Ala Pro Gly
65           70           75           80
Ser Leu Glu Trp His Tyr Pro Ala Gly Ala Met Gly Ile Ser Phe Arg
          85           90           95
Glu Gly

```

<210> 745

<211> 362

<212> DNA

<213> Homo sapiens

<400> 745

```

cggccgattg aagcgctcgct gcggtttgag tcggtgatgg atgcggtgga cggtgcttcg
60
gcgtcgtggt ggcgcatggc gcggtatttc atcgccgagc ttgaacgcag cagcgagttg
120
tatgagcagg cggcgctttac ccgcatctg gaaagctcgc tgatcaaggg cctgacctc
180
gcccagccga acaactactc cgaagaactg cgcgacgtac tcggcggtgaa gctgccgcat
240
tacttgattc gcgcgcggca gtacatccac gacaacgccc gcgaagccgt gcatctggaa
300
gacctggaaa ccgctgccgg ggtatcgcgg ttcaagttgt tcgatgcgtt tcgcaaatac
360
tt
362

```

<210> 746

<211> 108

<212> PRT

<213> Homo sapiens

<400> 746

```

Met Asp Ala Val Asp Gly Ala Ser Ala Ser Trp Trp Arg Met Ala Arg
 1           5           10           15
Tyr Phe Ile Ala Glu Leu Glu Arg Ser Ser Glu Leu Tyr Glu Gln Ala
          20           25           30
Ala Phe Thr Arg Asp Leu Glu Ser Ser Leu Ile Lys Gly Leu Ile Leu
          35           40           45
Ala Gln Pro Asn Asn Tyr Ser Glu Glu Leu Arg Asp Val Leu Gly Val
          50           55           60
Lys Leu Pro His Tyr Leu Ile Arg Ala Arg Gln Tyr Ile His Asp Asn

```

```
<210> 747
<211> 416
<212> DNA
<213> Homo sapiens
```

```
<210> 748
<211> 138
<212> PRT
<213> Homo sapiens
```

<210> 749  
<211> 1211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 749

nagtcctaga cgccagaccc gctcagaccc tctgccagg tgacagccgc caagatgggg  
 60  
 tcttggggccc tgctgtggcc tcccctgctg ttcaccgggc tgctcgccg acccccgggg  
 120  
 accatggccc agggccagta ctgctctgtg aacaaggaca tctttgaagt agaggagaac  
 180  
 acaaatgtca ccgagccgct ggtggacatc cacgtcccgg agggccagga ggtgaccctc  
 240  
 ggagccttgt ccacccctt tgcatttcgg atccagggaa accagctgtt tctcaacgtg  
 300  
 actcctgatt acgaggagaa gtcactgctt gaggtcagc tgctgtgtca gagcggaggc  
 360  
 acattggtga cccagctaag ggtgttcgtg tcagtgtgtg acgtcaatga caatgcccc  
 420  
 gaattccctt ttaagaccaa ggagataagg gtggaggagg acacgaaagt gaactccacc  
 480  
 gtcacccccg agacgcaact gcaggtgag gaccgagaca aggacgacat tctgttctac  
 540  
 accctccagg aaatgacagc aggtgccagt gactacttct ccctggtgag tgtaaaccgt  
 600  
 cccgccctga ggctggaccg gcccctggac ttctacgagc ggccgaacat gaccttctgg  
 660  
 ctgctggtgc gggacactcc gggggagaat gtggaacca gccacactgc caccgccaca  
 720  
 ctagtgctga acgtggtgcc cgccgacctg cgcccccggt ggttcctgcc ctgcaccttc  
 780  
 tcagatggct acgtctgcat tcaagctcag taccacgggg ctgtccccac ggggcacata  
 840  
 ctgccatctc ccctcgctct gcgtcccga cccatctacg ctgaggacgg agaccgcggc  
 900  
 atcaaccagc ccatcatcta cagcatcttt aggggaaacg tgaatggtac attcatcatc  
 960  
 caccagact cgggcaacct caccgtggcc aggagtgtcc ccagccccat gaccttcctt  
 1020  
 ctgctggtga agggccaaca ggccgacctt gcccgtact cagtgaacca ggtcaccgtg  
 1080  
 gagggctgtg gctgcgggcg ggagcccgcg ccgcttcccc cagagcctgt atcgtggcac  
 1140  
 cgtggcgcggt ggcgctggag cgggcgttgt ggtcaaggat gcagctgccc cttttcagcc  
 1200  
 tctgaggatc c  
 1211

&lt;210&gt; 750

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 750

Met Gly Ser Trp Ala Leu Leu Trp Pro Pro Leu Leu Phe Thr Gly Leu



```

      1           5           10           15
Leu Val Arg Pro Pro Gly Thr Met Ala Gln Ala Gln Tyr Cys Ser Val
      20           25           30
Asn Lys Asp Ile Phe Glu Val Glu Asn Thr Asn Val Thr Glu Pro
      35           40           45
Leu Val Asp Ile His Val Pro Glu Gly Gln Glu Val Thr Leu Gly Ala
      50           55           60
Leu Ser Thr Pro Phe Ala Phe Arg Ile Gln Gly Asn Gln Leu Phe Leu
      65           70           75           80
Asn Val Thr Pro Asp Tyr Glu Glu Lys Ser Leu Leu Glu Ala Gln Leu
      85           90           95
Leu Cys Gln Ser Gly Gly Thr Leu Val Thr Gln Leu Arg Val Phe Val
      100           105           110
Ser Val Leu Asp Val Asn Asp Asn Ala Pro Glu Phe Pro Phe Lys Thr
      115           120           125
Lys Glu Ile Arg Val Glu Glu Asp Thr Lys Val Asn Ser Thr Val Ile
      130           135           140
Pro Glu Thr Gln Leu Gln Ala Glu Asp Arg Asp Lys Asp Asp Ile Leu
      145           150           155           160
Phe Tyr Thr Leu Gln Glu Met Thr Ala Gly Ala Ser Asp Tyr Phe Ser
      165           170           175
Leu Val Ser Val Asn Arg Pro Ala Leu Arg Leu Asp Arg Pro Leu Asp
      180           185           190
Phe Tyr Glu Arg Pro Asn Met Thr Phe Trp Leu Leu Val Arg Asp Thr
      195           200           205
Pro Gly Glu Asn Val Glu Pro Ser His Thr Ala Thr Ala Thr Leu Val
      210           215           220
Leu Asn Val Val Pro Ala Asp Leu Arg Pro Pro Trp Phe Leu Pro Cys
      225           230           235           240
Thr Phe Ser Asp Gly Tyr Val Cys Ile Gln Ala Gln Tyr His Gly Ala
      245           250           255
Val Pro Thr Gly His Ile Leu Pro Ser Pro Leu Val Leu Arg Pro Gly
      260           265           270
Pro Ile Tyr Ala Glu Asp Gly Asp Arg Gly Ile Asn Gln Pro Ile Ile
      275           280           285
Tyr Ser Ile Phe Arg Gly Asn Val Asn Gly Thr Phe Ile Ile His Pro
      290           295           300
Asp Ser Gly Asn Leu Thr Val Ala Arg Ser Val Pro Ser Pro Met Thr
      305           310           315           320
Phe Leu Leu Leu Val Lys Gly Gln Gln Ala Asp Leu Ala Arg Tyr Ser
      325           330           335
Val Thr Gln Val Thr Val Glu Gly Cys Gly Cys Gly Arg Glu Pro Ala
      340           345           350
Pro Leu Pro Pro Glu Pro Val Ser Trp His Arg Gly Ala Trp Arg Trp
      355           360           365
Ser Gly Arg Cys Gly Gln Gly Cys Ser Cys Pro Phe Ser Ala Ser Glu
      370           375           380
Asp
385

```

&lt;210&gt; 751

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 751

cgcgctcgcg tcatcgtaa cgacatgagc gaggtcaaca tcgacgcggc gctggtggcg  
60  
gcaggcgggc ggctgtcgcg caccgaggag aagctcgtcg agatgtcgaa cggctgcac  
120  
tgctgcacgc tgcgcgacga cctgatgcag gaagtggcga gactggcggg cgaaggccgc  
180  
ttcgatgcgc tggatcatga gagcaccggc gtgtccgagc cgatgccggt cgccgccacg  
240  
ttcgatttcc gtgaccagga cggcgctctc ctcgccgacg tcgcgcggct ggataccatg  
300  
gtcacgcgtc tcgacgccgc gtccttctct cgcgactacg gctcgc  
345

&lt;210&gt; 752

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 752

Arg	Val	Ala	Val	Ile	Val	Asn	Asp	Met	Ser	Glu	Val	Asn	Ile	Asp	Ala
1				5					10					15	
Ala	Leu	Val	Ala	Ala	Gly	Gly	Gly	Leu	Ser	Arg	Thr	Glu	Glu	Lys	Leu
		20						25					30		
Val	Glu	Met	Ser	Asn	Gly	Cys	Ile	Cys	Cys	Thr	Leu	Arg	Asp	Asp	Leu
		35				40						45			
Met	Gln	Glu	Val	Ala	Arg	Leu	Ala	Gly	Glu	Gly	Arg	Phe	Asp	Ala	Leu
	50					55					60				
Val	Ile	Glu	Ser	Thr	Gly	Val	Ser	Glu	Pro	Met	Pro	Val	Ala	Ala	Thr
65					70					75				80	
Phe	Asp	Phe	Arg	Asp	Gln	Asp	Gly	Val	Ser	Leu	Ala	Asp	Val	Ala	Arg
			85					90					95		
Leu	Asp	Thr	Met	Val	Thr	Val	Val	Asp	Ala	Ala	Ser	Phe	Leu	Arg	Asp
			100					105					110		
Tyr	Gly	Ser													
		115													

&lt;210&gt; 753

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 753

gcgcgccagt acgccaagac cgtccgcaag gaccgcaagg gcgaacggcg gcgtcggggc  
60  
gcgtcggact agtccacgat gcatccgaac cgcgccttcc gctttgccga tgatgtctcg  
120  
atgctcgatt tcgaggccaa gcgagccttt gcgcacatct tcgtgagcac gcccgagggg  
180  
cctatggtag cgcattgccc ggttacgccc ttcgacggag ccttccgctt ccatgtcgcg  
240  
cgcgccaatc ggatcgcgcg gcacctggat ggcgcgacgc tgctgctcag catcagcgcg  
300

accgacggct atatcagccc gagctggtac gccgaccgc agggaccaca gt  
352

<210> 754  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 754  
Met His Pro Asn Arg Ala Phe Arg Phe Ala Asp Asp Val Ser Met Leu  
1 5 10 15  
Asp Phe Ala Ala Lys Arg Ala Phe Ala His Ile Phe Val Ser Thr Pro  
20 25 30  
Glu Gly Pro Met Val Ala His Ala Pro Val Thr Pro Phe Asp Gly Ala  
35 40 45  
Phe Arg Phe His Val Ala Arg Gly Asn Arg Ile Ala Arg His Leu Asp  
50 55 60  
Gly Ala Thr Leu Leu Leu Ser Ile Ser Ala Thr Asp Gly Tyr Ile Ser  
65 70 75 80  
Pro Ser Trp Tyr Ala Asp Pro Gln Gly Pro Gln  
85 90

<210> 755  
<211> 301  
<212> DNA  
<213> Homo sapiens

<400> 755  
tgggatgcag ggtctttctt ctccaaggat ttcattctctg gagggagaaa agggcccccag  
60  
ctgtctgccca tcaaaccggg ttgccgggct ggagctctctc ccaggcccgt gtgaggaaga  
120  
gcaaaggccg gcaggggctc gatgggacca gtcgctcgct caggcccagg aaaaccacac  
180  
agctgggggc tgtcaggatt ggaccagggt caggccggcc aggcgatggc gggaaaagca  
240  
ggcccactct gcagacctca atgtctcagg tgcactgcag ggcaaccccg cctaccccgg  
300  
g  
301

<210> 756  
<211> 99  
<212> PRT  
<213> Homo sapiens

<400> 756  
Met Gln Gly Leu Ser Ser Pro Arg Ile Ser Phe Leu Glu Gly Glu Lys  
1 5 10 15  
Gly Pro Ser Cys Leu Pro Ser Asn Arg Val Ala Gly Leu Glu Leu Leu  
20 25 30  
Pro Gly Pro Cys Glu Glu Glu Gln Arg Pro Ala Gly Ala Arg Trp Asp  
35 40 45  
Gln Ser Leu Ala Gln Ala Gln Glu Asn His Thr Ala Gly Gly Cys Gln

50                      55                      60  
 Asp Trp Thr Arg Val Arg Pro Ala Arg Arg Trp Arg Glu Lys Gln Ala  
 65                      70                      75                      80  
 His Ser Ala Asp Leu Asn Val Ser Gly Ala Leu Gln Gly Asn Pro Ala  
                     85                      90                      95  
 Tyr Pro Gly

<210> 757  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<400> 757  
 actgaggcga tcgccagagg ggtgggctg cgagggctgc tcaacatcca gttcgccctg  
 60  
 gtctccgatg ttctctacgt catcgaggcc aacccaggg catcgcgac agtccccctc  
 120  
 gtctcaaagg catccggcgt gcagctcgcc aaagcggcgg ccctcatcat gacaggggag  
 180  
 acgatcgct cgctcaggcg ctccggccac ctgcccagg cgcacgccgc cgtcaccgat  
 240  
 ccgatgacc cgatcgccgt caaggaggcg gtcctaccct tcaaacgatt ccgcaccacc  
 300  
 gagggacgcg t  
 311

<210> 758  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 758  
 Thr Glu Ala Ile Ala Arg Gly Val Gly Val Arg Gly Leu Leu Asn Ile  
 1                      5                      10                      15  
 Gln Phe Ala Leu Val Ser Asp Val Leu Tyr Val Ile Glu Ala Asn Pro  
                     20                      25                      30  
 Arg Ala Ser Arg Thr Val Pro Phe Val Ser Lys Ala Ser Gly Val Gln  
                     35                      40                      45  
 Leu Ala Lys Ala Ala Ala Leu Ile Met Thr Gly Glu Thr Ile Ala Ser  
                     50                      55                      60  
 Leu Arg Arg Ser Gly His Leu Pro Glu Ala Asp Ala Ala Val Thr Asp  
 65                      70                      75                      80  
 Pro Asp Asp Pro Ile Ala Val Lys Glu Ala Val Leu Pro Phe Lys Arg  
                     85                      90                      95  
 Phe Arg Thr Thr Glu Gly Arg  
                     100

<210> 759  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 759

gtgcacaccg gcaagctggg gtggaactgg gacagcggca acccggacga cactacgccg  
60  
attgccgagg gcaagaccta caccgcaac tcgccgaaca tgtgggtccat gttcgccgtc  
120  
gacgaaaaac tcggcatgct ctacctgccg atgggcaacc agaccccgga ccagttcggg  
180  
ggctaccgca cgcctgcgtc ggaactgcac gctgccggcc tgacagcgtt ggatatcgac  
240  
actggtaaag tgcgtgggca ctaccagttc acccaccatg acctgtggga catggacgtg  
300  
ggcggccagc cgagcctgat cgacatcaag accgccgccg gcgtgaaaca agccgtgatg  
360  
gcctcgacca agcaaggcag catctacgcg t  
391

<210> 760

<211> 130

<212> PRT

<213> Homo sapiens

<400> 760

Val	His	Thr	Gly	Lys	Leu	Val	Trp	Asn	Trp	Asp	Ser	Gly	Asn	Pro	Asp
1				5					10					15	
Asp	Thr	Thr	Pro	Ile	Ala	Glu	Gly	Lys	Thr	Tyr	Thr	Arg	Asn	Ser	Pro
			20					25					30		
Asn	Met	Trp	Ser	Met	Phe	Ala	Val	Asp	Glu	Lys	Leu	Gly	Met	Leu	Tyr
		35					40					45			
Leu	Pro	Met	Gly	Asn	Gln	Thr	Pro	Asp	Gln	Phe	Gly	Gly	Tyr	Arg	Thr
	50					55					60				
Pro	Ala	Ser	Glu	Leu	His	Ala	Ala	Gly	Leu	Thr	Ala	Leu	Asp	Ile	Asp
65					70					75				80	
Thr	Gly	Lys	Val	Arg	Trp	His	Tyr	Gln	Phe	Thr	His	His	Asp	Leu	Trp
				85					90				95		
Asp	Met	Asp	Val	Gly	Gly	Gln	Pro	Ser	Leu	Ile	Asp	Ile	Lys	Thr	Ala
			100					105					110		
Ala	Gly	Val	Lys	Gln	Ala	Val	Met	Ala	Ser	Thr	Lys	Gln	Gly	Ser	Ile
		115					120					125			
Tyr	Ala														
	130														

<210> 761

<211> 324

<212> DNA

<213> Homo sapiens

<400> 761

cctaggtagg cccaaagggg cctaactttc ttgctgccct ggtggagcaa gaaatatctt  
60  
ctaggagagg ccaatccttc cctgccccac agctccttct ctgcaaagct caggggggcaa  
120  
tcagggtacct cctgccaag agggcccat ggttcctcgc ctaaggaagg cagggcgggg  
180  
cattgggagc cgttgacagc tgggctcagc tggggggagg ggtcagtttg ggagcaggtg  
240

cagatttcag ggaggggggg gcctaaaggg aagtagggat cttggttaggc tgcaaaattt  
300

tcctcccat ccccatcca caga  
324

<210> 762

<211> 105

<212> PRT

<213> Homo sapiens

<400> 762

Met	Gly	Asp	Gly	Glu	Glu	Asn	Phe	Ala	Ala	Tyr	Gln	Asp	Pro	Tyr	Phe
1				5					10					15	
Pro	Leu	Gly	Pro	Pro	Leu	Pro	Glu	Ile	Cys	Thr	Cys	Ser	Gln	Thr	Asp
			20				25						30		
Pro	Ser	Pro	Gln	Leu	Ser	Pro	Ala	Val	Asn	Gly	Ser	Gln	Cys	Pro	Ala
			35				40					45			
Leu	Pro	Ser	Leu	Gly	Glu	Glu	Pro	Trp	Gly	Pro	Leu	Gly	Gln	Glu	Val
	50				55				60						
Pro	Asp	Cys	Pro	Leu	Ser	Phe	Ala	Glu	Lys	Glu	Leu	Trp	Gly	Arg	Glu
65					70				75					80	
Gly	Leu	Ala	Ser	Pro	Arg	Arg	Tyr	Phe	Leu	Leu	His	Gln	Gly	Ser	Lys
				85					90					95	
Lys	Val	Arg	Pro	Leu	Trp	Ala	Tyr	Leu							
			100					105							

<210> 763

<211> 301

<212> DNA

<213> Homo sapiens

<400> 763

acgcgttatg ggcggcccg atgggcgatg cgctatccca cacctcgatg atggcggaca  
60  
tcctcggcgg tgtgctggaa gtggcgcca atatcgcat tactgcgggc ggcaccgctg  
120  
ccgcggtggc cgccaccggc ttaccgagg ccaccggcgg cctcggtgc ttctgctgg  
180  
gcgctgcctt gggcaccatt gccggcctgg ccatgagcaa cattggcgcg gacacagggc  
240  
tgaccaagat atgcaatgcc tttaacaacg cttatttgc gccaccgtg catgcgaaca  
300  
t  
301

<210> 764

<211> 100

<212> PRT

<213> Homo sapiens

<400> 764

Met	Phe	Ala	Cys	Thr	Val	Gly	Ala	Asn	Lys	Ala	Leu	Leu	Lys	Ala	Leu
1				5					10				15		
His	Ile	Leu	Val	Ser	Pro	Val	Ser	Ala	Pro	Met	Leu	Leu	Met	Ala	Arg

```

      20      25      30
Pro Ala Met Val Pro Lys Ala Ala Pro Ser Arg Lys Gln Pro Arg Pro
      35      40      45
pro Val Ala Ser Val Lys Pro Val Ala Ala Thr Ala Ala Ala Val Ala
      50      55      60
Pro Ala Val Ile Ala Ile Leu Ala Ala Thr Ser Ser Thr Pro Pro Arg
65      70      75      80
Met Ser Ala Ile Ile Glu Val Trp Asp Ser Ala Ser Pro Ile Arg Ala
      85      90      95
Ala His Asn Ala
      100

```

&lt;210&gt; 765

&lt;211&gt; 831

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 765

```

ngcacactcc agcctctgtt ctttctctcc ttgtgccttt gcccttacca cggttcctca
60
taacattggt gttcctgtat ttaaggccct ataaacaggg agatgcgcca cctcatcagt
120
agcctccaga atcacaatca ccagctgaaa ggggaggtcc tgagatataa gcggaaattg
180
agagaagccc agtctgacct gaacaagaca cgctgcgta gtggtagtgc ctcctgcag
240
tcccagtcta gtactgagga cccgaaggat gagcctgcgg agctaaaacc agattctggg
300
gacttacct cccagtcctc agcttcaaag gcatctcagg aggatgccaa tgaaatcaag
360
tctaaacggg atgaagaaga acgagaacga gaaaggaggg agaaggagag ggaacgagaa
420
agagaacggg agaaggagaa ggagagagaa cgagagaagc agaagctaaa agagtcagaa
480
aaagagagag attctgctaa ggataaagag aaaggcaaac atgatgatgg acggaaaaag
540
gaagcagaaa ttatcaaaca attgaagatt gaactcaaga aggcacagga gagccaaaag
600
gagatgaaac tattgctgga tatgtaccgt tctgccccaa aggaacagag agacaaagtt
660
cagctgatgg cagctgagaa gaagtctaag gcagagttgg aagatctaag gcaaagactc
720
aaggatctgg aagataaaga gaagaaagag aacaagaaaa tggctgatga ggatgccttg
780
aggaagatcc gggcagtgga ggagcagata gaatacctac agaagaagct a
831

```

&lt;210&gt; 766

&lt;211&gt; 243

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 766

```

Met Arg His Leu Ile Ser Ser Leu Gln Asn His Asn His Gln Leu Lys

```

1                      5                      10                      15  
 Gly Glu Val Leu Arg Tyr Lys Arg Lys Leu Arg Glu Ala Gln Ser Asp  
                     20                      25                      30  
 Leu Asn Lys Thr Arg Leu Arg Ser Gly Ser Ala Leu Leu Gln Ser Gln  
                     35                      40                      45  
 Ser Ser Thr Glu Asp Pro Lys Asp Glu Pro Ala Glu Leu Lys Pro Asp  
                     50                      55                      60  
 Ser Gly Asp Leu Ser Ser Gln Ser Ser Ala Ser Lys Ala Ser Gln Glu  
 65                      70                      75                      80  
 Asp Ala Asn Glu Ile Lys Ser Lys Arg Asp Glu Glu Glu Arg Glu Arg  
                     85                      90                      95  
 Glu Arg Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Lys Glu  
                     100                      105                      110  
 Lys Glu Arg Glu Arg Glu Lys Gln Lys Leu Lys Glu Ser Glu Lys Glu  
                     115                      120                      125  
 Arg Asp Ser Ala Lys Asp Lys Glu Lys Gly Lys His Asp Asp Gly Arg  
                     130                      135                      140  
 Lys Lys Glu Ala Glu Ile Ile Lys Gln Leu Lys Ile Glu Leu Lys Lys  
 145                      150                      155                      160  
 Ala Gln Glu Ser Gln Lys Glu Met Lys Leu Leu Leu Asp Met Tyr Arg  
                     165                      170                      175  
 Ser Ala Pro Lys Glu Gln Arg Asp Lys Val Gln Leu Met Ala Ala Glu  
                     180                      185                      190  
 Lys Lys Ser Lys Ala Glu Leu Glu Asp Leu Arg Gln Arg Leu Lys Asp  
                     195                      200                      205  
 Leu Glu Asp Lys Glu Lys Lys Glu Asn Lys Lys Met Ala Asp Glu Asp  
                     210                      215                      220  
 Ala Leu Arg Lys Ile Arg Ala Val Glu Glu Gln Ile Glu Tyr Leu Gln  
 225                      230                      235                      240  
 Lys Lys Leu

&lt;210&gt; 767

&lt;211&gt; 431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 767

gctagctcgc tcgcactcat tctcgggagg cttccccgcg ccggccgcgt cccgcccgc  
 60  
 ccccggcacc agaagttcct ctgcgcgtcc gacggcgaca tgggcgtccc cacggccccg  
 120  
 gaggcggca gctggcgctg gggatccctg ctcttcgctc tcttctctggc tgcgtcccta  
 180  
 ggtccggtgg cagccttcaa ggtcgccacg ccgtattccc tgtatgtctg tcccagagggg  
 240  
 cagaacgtca ccctcacctg caggctcttg ggcctgttg acaaagggca cgatgtgacc  
 300  
 ttctacaaga cgtggtaccg cagctcgagg ggcgaggtgc agacctgctc agagcgccgg  
 360  
 cccatccgca acctcacgtt ccaggacctt cacctgcacc atggaggcca ccaggctgcc  
 420  
 aacaccagcc a  
 431



<210> 768  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 768  
 Met Gly Val Pro Thr Ala Pro Glu Ala Gly Ser Trp Arg Trp Gly Ser  
 1 5 10 15  
 Leu Leu Phe Ala Leu Phe Leu Ala Ala Ser Leu Gly Pro Val Ala Ala  
 20 25 30  
 Phe Lys Val Ala Thr Pro Tyr Ser Leu Tyr Val Cys Pro Glu Gly Gln  
 35 40 45  
 Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val Asp Lys Gly His  
 50 55 60  
 Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser Ser Arg Gly Glu Val  
 65 70 75 80  
 Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg Asn Leu Thr Phe Gln Asp  
 85 90 95  
 Leu His Leu His His Gly Gly His Gln Ala Ala Asn Thr Ser  
 100 105 110

<210> 769  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 769  
 tgtacacctc gtaatacatg atcgcgatac cgcccgcgat gaccctaagc aactcattct  
 60  
 cgacttcgaa ctccatcaag tgatttttgc ggtcgacgaa tctgggtttcc gtatgaaaga  
 120  
 acggtatggt ttgtatgtcg cggccctgcc actcaaacct caccgtgtca cccacctcaa  
 180  
 aaaaatcccg ggtcggccca caaataaatc aattgcgccg ctccctccgag ttcttccatg  
 240  
 tcaacgatct cccctggctg ctcaagccaa ggccctcgcg gccgtgggac tccaaggttg  
 300  
 acgttgaccc gactgatttc ggaccagttg gcgtcggtat tgggggcagg gtagttaccg  
 360  
 cccatgtcga tgatctacat cgccaccggc agcgtgtctt cgtagtcgtc atgcctgac  
 420  
 an  
 422

<210> 770  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 770  
 Met Phe Cys Met Ser Arg Pro Cys His Ser Asn Leu Thr Val Ser Pro  
 1 5 10 15  
 Thr Ser Lys Lys Ser Arg Val Gly Pro Gln Ile Asn Gln Leu Arg Arg

20 25 30  
 Ser Ser Glu Phe Phe His Val Asn Asp Leu Pro Trp Leu Leu Lys Pro  
 35 40 45  
 Arg Pro Ser Arg Pro Trp Asp Ser Lys Val Asp Val Asp Pro Thr Asp  
 50 55 60  
 Phe Gly Pro Val Gly Val Gly Ile Gly Gly Arg Val Val Thr Ala His  
 65 70 75 80  
 Val Asp Asp Leu His Arg His Arg Gln Arg Val Phe Val Val Val Met  
 85 90 95  
 Pro Asp Xaa

<210> 771  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 771  
 gctacgcgc aattcctcgc gggatatggcg ttttaacaatg cgtctctcgg gtatgtgcat  
 60  
 gcaatggcgc atcagctggg cggtttttac gatctgccgc acggcgtgtg caatgcgata  
 120  
 ctgttgccac acgtgcagac gttaactgc aaagtggcgg cctcgcgcct gcgtgattgc  
 180  
 gcccaggcca tgggtgtcga tgtcagtcaa atgacagcag aacagggcgc acaggcgtgt  
 240  
 atcgagaga ttcgctctct ggcacgtcag gtgaatatcc cggtgggatt gcgtgacctc  
 300  
 aacgtgaagg aagcggactt cccgattctg gcgaccaacg cgctaaaaga ccctgtgggt  
 360  
 ttgattaat  
 369

<210> 772  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 772  
 Ala Tyr Ala Gln Phe Leu Ala Gly Met Ala Phe Asn Asn Ala Ser Leu  
 1 5 10 15  
 Gly Tyr Val His Ala Met Ala His Gln Leu Gly Gly Phe Tyr Asp Leu  
 20 25 30  
 Pro His Gly Val Cys Asn Ala Ile Leu Leu Pro His Val Gln Thr Phe  
 35 40 45  
 Asn Cys Lys Val Ala Ala Ser Arg Leu Arg Asp Cys Ala Gln Ala Met  
 50 55 60  
 Gly Val Asp Val Ser Gln Met Thr Ala Glu Gln Gly Ala Gln Ala Cys  
 65 70 75 80  
 Ile Ala Glu Ile Arg Ser Leu Ala Arg Gln Val Asn Ile Pro Val Gly  
 85 90 95  
 Leu Arg Asp Leu Asn Val Lys Glu Ala Asp Phe Pro Ile Leu Ala Thr  
 100 105 110  
 Asn Ala Leu Lys Asp Pro Val Gly Leu Ile Asn

115

120

<210> 773  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 773  
 ccgccgttgc cggcggtgga ttttctggta ggcttgaatc agcgcttggc tgccgacatc  
 60  
 gggtacttga tccgcgtgga gccggggcgta caaactccgg aattcaccct ggaaaacgcc  
 120  
 tccggttcct gccgggattc ggcggtggtt ctggtgcaac tgctgcgcaa cctgggacctg  
 180  
 gcggcgcgat ttgtgtctgg ctatctgac caactgaccg ccgacgtcaa agccctcgac  
 240  
 ggcccgtccg gcaccgaggt ggatttcacc gacctgcatg cctggtgcga agtgtatttg  
 300  
 cccggcgcc  
 309

<210> 774  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 774  
 Pro Pro Leu Pro Ala Val Asp Phe Leu Val Gly Leu Asn Gln Arg Leu  
 1 5 10 15  
 Ala Ala Asp Ile Gly Tyr Leu Ile Arg Val Glu Pro Gly Val Gln Thr  
 20 25 30  
 Pro Glu Phe Thr Leu Glu Asn Ala Ser Gly Ser Cys Arg Asp Ser Ala  
 35 40 45  
 Trp Leu Leu Val Gln Leu Leu Arg Asn Leu Gly Leu Ala Ala Arg Phe  
 50 55 60  
 Val Ser Gly Tyr Leu Ile Gln Leu Thr Ala Asp Val Lys Ala Leu Asp  
 65 70 75 80  
 Gly Pro Ser Gly Thr Glu Val Asp Phe Thr Asp Leu His Ala Trp Cys  
 85 90 95  
 Glu Val Tyr Leu Pro Gly Ala  
 100

<210> 775  
 <211> 4125  
 <212> DNA  
 <213> Homo sapiens

<400> 775  
 nncaggatgg gcgcgaacaa tggcaaacag tacggcagtg agggcaaagg cagctcgagc  
 60  
 atctcatctg acgtgagttc aagtacagat cacacgcca ctaaagcca gaagaatgtg  
 120  
 gctaccagcg aagactccga cctgagcatg cgcacactga gcacgcccag cccagccctg  
 180

atatgtccac cgaatctccc aggatttcag aatggaaggg gctcgtccac ctccctcgtec  
240  
tccatcacccg gggagacggg ggccatggtg cactccccgc ccccgacccg cctcacacac  
300  
ccgctcatcc ggctcgccctc cagaccccag aaggatcagg ccagcataga ccggctccccg  
360  
gaccactcca tgggtgcagat cttctccttc ctgcccacca accagctgtg ccgctgcgcg  
420  
cgagtgtgcc gccgctggta caacctggcc tgggacccgc ggctctggag gactatccgc  
480  
ctgacgggcg agaccatcaa cgtggaccgc gccctcaagg tgctgacccg cagactctgc  
540  
caggacaccc ccaacgtgtg tctcatgctg gaaaccgtaa ctgtcagtgg ctgcaggcgg  
600  
ctcacagacc gagggctgta caccatcgcc cagtgtgtcc ccgaactgag gcgactggaa  
660  
gtctcaggct gttacaatat ctccaacgag gccgtctttg atgtggtgtc cctctgccct  
720  
aatctggagc acctggatgt gtcaggatgc tccaaagtga cctgcatcag cttgacccgg  
780  
gaggcctcca ttaaaactgtc acccttgcac ggcaaacaga tttccatccg ctacctggac  
840  
atgacggact gcttcgtgct ggaggacgaa ggcctgcaca ccacgcggc gactgcacg  
900  
cagctcacc cctctacct gcgcgctgc gtccgcctga ccgacgaagg cctgcgctac  
960  
ctggtgatct actgcgcctc catcaaggag ctgagcgtca gcgactgccg cttcgtcage  
1020  
gacttcggcc tgcgggagat cgccaagctg gagtcccgcc tgcggtacct gagcatcgcg  
1080  
cactgcggcc gggtcaccga cgtgggcac cgtacgtgg ccaagtactg cagcaagctg  
1140  
cgctacctca acgcgagggg ctgcgagggc atcacggacc acggtgtgga gtacctcgcc  
1200  
aagaactgca ccaaactcaa atccctggat atcggcaa at gccctttggt atccgacacg  
1260  
ggcctggagt gcctggccct gaactgcttc aacctcaagc ggctcagcct caagtccctgc  
1320  
gagagcatca ccggccaggg cttgcagatc gtggccgcca actgctttga cctccagacg  
1380  
ctgaatgtcc aggactgcga ggtctccgtg gaggcctgc gctttgtcaa acgccactgc  
1440  
aagcgtgcg tcatcgagca caccaacccg gctttcttct gaaggacag agttcatccg  
1500  
gcgttgatt cacacaaacc tgaacaaagc aaattttttt aaaagcagcg tatgtaagca  
1560  
ccgacacca ctcaaaacag ctctttcttc cgggaagggt attaggaatc tggcctttat  
1620  
ttttctcat ttctcatggg caacagaggc caaagaaacg aagcaagaca aacagcaaac  
1680  
aggcattttg gtcaggatcat ttgtaggcag tttctcttct cacaaaagat gtacttaagc  
1740  
aggctgatcg ctgttccttg agcaaggcgc ttactctcct ccgctcaggc cccaaggcc  
1800

gccctttccc tcgcacacag gccccacccc cacagttcca cgcccccccc ccaaggccac  
1860  
accctccctc cctagagcag cagcgaggat ccatcatcag aatcacagtg ctctccagac  
1920  
ctcctctcta aactgcttca ttgacctaaag tcaactctctt caatcccaca cccatggaca  
1980  
ttcttgtcaa ctcaatacca tagcactttg cataggcaaa atacttttca ggccttttta  
2040  
aaaaattcat tacagcaaac agctggggaa ggacatgcag tcctcccca gctctgtcaa  
2100  
tgactatgac cttggccaaa gcacttcact gctctgggct gcagcttcca gcactgaatc  
2160  
agaggccaca cagcccaaag attagcttca tgtccattat agcattgagg gagcagagat  
2220  
accatacac agaagcacct tggcatagag caccaggca tcgacctctt ccaggagaac  
2280  
tgattctgtg gatggatgtg atttcaggag attgtgcagt gccagcatca gtgcataaag  
2340  
ggctctgtat gtcccttggc tgcaaatcac ccacttcctt gtgtttcagt gggagaattt  
2400  
cctctccac ctctccat cctcttttgc caggctggat gctgtcgtct ctgtacacaa  
2460  
atactttctg cattcccccc tccacaccat cctagcgagg caccagcaca cctaatacaca  
2520  
gcaaagccca gatcccccca tcagttgctt ttactcagtg ttttcaaata ggagtaaagg  
2580  
cccttgcaat ttttaattaa caagcaaggc ccaagggaac acatgtcctc aaaagtttt  
2640  
ctgatccctc gccttgcaac cctggcatgc atcaggcaca tctgtcctac agctggcaga  
2700  
gacagatgcc tcggttcttt gtcattcaga ttgcatttga cctcttctca tctatttatt  
2760  
tctttataca tccagacttc atcacatgaa gcctattggg gtttaagttg taagtgttta  
2820  
attgtgcaaa ttgccacct gtgtacctcc tccatgtctg tctgcgtgtt tccaccaaa  
2880  
gaatgcaag cagacttcca ggtgtttaa ttctgttcac tcaacaatgc cagatgaatg  
2940  
gaagagggaa cacactgaga tgacttagac tctgggtccac caaccagacc cttggaaagg  
3000  
aatactaaaa tcattacaag gtatggattt taaatggatg aaacttcaa ttatcttatt  
3060  
tggatagaag tctatattct agcctcattt gcatgaagtc agatagccag aagaaattcc  
3120  
attgctggtt ttacagaaat tcaactgtct tttgctaata aacacatggc cctttccag  
3180  
attattctct agccaagccc cacctttgtt acgttgaaat ccctcattta tttcttctc  
3240  
aaaatgcccc ttatccaaat gcagaacctc tgcatctcca agccagttat gctgaatttg  
3300  
tcaaacttag acacccttga caactgcact cctactgtag gctcctgtgc atactgtcgt  
3360  
cttctgtggg ggatggagag gttagtgtga tgagggtggg tctgccagg aggtttctt  
3420

caaacatcat ggccctcccat ccaatcaaca tcacaaatt acatgtgtaa tcaaggctct  
 3480  
 gtgccatggg ggaaatgaat catttagcta ggccaggatc tagtgaaagc cacagagttt  
 3540  
 aaaaccatga aagaagttga aggcagcatt ctcagctct gtgacttggt accctatttg  
 3600  
 aagtttcagg atttgggtgt cacaaaggat tgtccctaatt ccttggccct ggggtcttcc  
 3660  
 gagtgagctg gtttaatact ctgagaatga gcagggagat ccagagaatg aatccctgac  
 3720  
 cgcacacct aaactgtctt ccaaaccatga gacaaagctg actgttcaca ctgattgccc  
 3780  
 agcacatacc gtcttgccag tttcttcttt tctcccagtc tctgttcat ccattctggt  
 3840  
 ctcccttggg gtgggaatct atgatggagg ttactgggga aacagctcag cagatttttg  
 3900  
 gagaccaaac caaaggtctc actaggaaat ttatctgttt taaaacattg cttccttctc  
 3960  
 ggctctgcta aattgaatgc tcattgtttg ttgttgttgt tttttaattc taatgttcaa  
 4020  
 atcactgcgt gctgtatgaa tctagaaagc cttaatttac taccaagaaa taaagcaata  
 4080  
 tgttcgtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4125

<210> 776

<211> 483

<212> PRT

<213> Homo sapiens

<400> 776

Tyr	Gly	Ser	Glu	Gly	Lys	Gly	Ser	Ser	Ser	Ile	Ser	Ser	Asp	Val	Ser
1				5					10					15	
Ser	Ser	Thr	Asp	His	Thr	Pro	Thr	Lys	Ala	Gln	Lys	Asn	Val	Ala	Thr
			20					25					30		
Ser	Glu	Asp	Ser	Asp	Leu	Ser	Met	Arg	Thr	Leu	Ser	Thr	Pro	Ser	Pro
	35					40					45				
Ala	Leu	Ile	Cys	Pro	Pro	Asn	Leu	Pro	Gly	Phe	Gln	Asn	Gly	Arg	Gly
	50					55				60					
Ser	Ser	Thr	Ser	Ser	Ser	Ser	Ile	Thr	Gly	Glu	Thr	Val	Ala	Met	Val
65					70					75				80	
His	Ser	Pro	Pro	Pro	Thr	Arg	Leu	Thr	His	Pro	Leu	Ile	Arg	Leu	Ala
				85					90					95	
Ser	Arg	Pro	Gln	Lys	Asp	Gln	Ala	Ser	Ile	Asp	Arg	Leu	Pro	Asp	His
		100					105					110			
Ser	Met	Val	Gln	Ile	Phe	Ser	Phe	Leu	Pro	Thr	Asn	Gln	Leu	Cys	Arg
	115					120					125				
Cys	Ala	Arg	Val	Cys	Arg	Arg	Trp	Tyr	Asn	Leu	Ala	Trp	Asp	Pro	Arg
	130				135					140					
Leu	Trp	Arg	Thr	Ile	Arg	Leu	Thr	Gly	Glu	Thr	Ile	Asn	Val	Asp	Arg
145				150					155					160	
Ala	Leu	Lys	Val	Leu	Thr	Arg	Arg	Leu	Cys	Gln	Asp	Thr	Pro	Asn	Val
			165					170						175	
Cys	Leu	Met	Leu	Glu	Thr	Val	Thr	Val	Ser	Gly	Cys	Arg	Arg	Leu	Thr

```
<210> 777
<211> 705
<212> DNA
<213> Homo sapiens
```

843

actcagcaaaa aggagagctc tgaaggtccc tgaggcggca cgggccagca ttattaggtc  
 300  
 acatgggtatg acctgaaaca aatacgttct tcccaaatgt ggcaggaccg ggagagcttc  
 360  
 tcaccaggag ggaaccgccg caatgaccgc cggacgtcca gcaacacttg ttggtagtc  
 420  
 ttgctcatct gccgtagggtt cttccctgat ataggagggtg ggtcattggc attgacattg  
 480  
 aggagcttgg gccacacttt tcgtctgac tcatcagtca ggagccctcc ttcactgata  
 540  
 gccatgcgtc taagggcagc cacatcagtg ggatcactgt tcagagcctg gtgtatctct  
 600  
 aacactttct ttttcctttt ggcgttaaag tctgccttct ccgcgccgcc gtcccagtgg  
 660  
 ccggagggtgg gccgtccctt gcgcactccg gaggccatcc ccggg  
 705

<210> 778  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 778  
 Met Ala Ser Gly Val Arg Arg Gly Arg Pro Thr Ser Gly His Trp Asp  
 1 5 10 15  
 Gly Gly Ala Glu Lys Ala Asp Phe Asn Ala Lys Arg Lys Lys Lys Val  
 20 25 30  
 Leu Glu Ile His Gln Ala Leu Asn Ser Asp Pro Thr Asp Val Ala Ala  
 35 40 45  
 Leu Arg Arg Met Ala Ile Ser Glu Gly Gly Leu Leu Thr Asp Glu Ile  
 50 55 60  
 Arg Arg Lys Val Trp Pro Lys Leu Leu Asn Val Asn Ala Asn Asp Pro  
 65 70 75 80  
 Pro Pro Ile Ser Gly Lys Asn Leu Arg Gln Met Ser Lys Asp Tyr Gln  
 85 90 95  
 Gln Val Leu Leu Asp Val Arg Arg Ser Leu Arg Arg Phe Pro Pro Gly  
 100 105 110  
 Glu Lys Leu Ser Arg Ser Cys His Ile Trp Glu Glu Arg Ile Cys Phe  
 115 120 125  
 Arg Ser Tyr His Val Thr  
 130

<210> 779  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 779  
 tccggacatg tgcaaacaat tcaatgatgt ggtgcgtcga catggtgtgc atcactctgt  
 60  
 gactgtgagt gattctgagg ataccggtgc gccgtcccag ctggttcgat cccctcgtaa  
 120  
 cgccttgccct ttgaaggaac ccagtgggaa ggctagacca agtaaatatg aatcaccaaa  
 180



cgccagcaac ttcacgtca ggcattgtggc aactggcaaa gagggcactg atgatgagta  
 240  
 tgctaactca aactactact actcgaatgtc tgccaatcga ctaggagacg aggaaacgga  
 300  
 ggaaatgata ggtttggcta cc  
 322

<210> 780  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 780  
 Met Cys Lys Gln Phe Asn Asp Val Val Arg Arg His Gly Val His His  
 1 5 10 15  
 Ser Val Thr Val Ser Asp Ser Glu Asp Thr Val Ala Pro Ser Gln Leu  
 20 25 30  
 Val Arg Ser Pro Arg Asn Ala Leu Pro Leu Lys Glu Pro Ser Gly Lys  
 35 40 45  
 Ala Arg Pro Ser Lys Tyr Glu Ser Pro Asn Ala Ser Asn Phe Ile Val  
 50 55 60  
 Arg His Val Ala Thr Gly Lys Glu Gly Thr Asp Asp Glu Tyr Ala Asn  
 65 70 75 80  
 Ser Asn Tyr Tyr Tyr Ser Met Ser Ala Asn Arg Leu Gly Asp Glu Glu  
 85 90 95  
 Thr Glu Glu Met Ile Gly Leu Ala Thr  
 100 105

<210> 781  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 781  
 nntcgcgtgc ctggaatgtg tgtctgtgta tgtgtgtgta tgtatgtgtg tatggaatgt  
 60  
 gtgtgtatgn gaatatgtgt gtgtatnga atgtgtgtgt gtgtttggaa tgtgtgtatg  
 120  
 gaatgtgtgt ctgtgtatgg aatatgtgtg agtatngaa tgtgtgtgtg tgtttggaat  
 180  
 gtatcgaatg tgtgtctgtg tgtaaggaat gtgtgtgtat ggaatgtgtt tacgtgcatg  
 240  
 tgtctggaat gtgtgtgtat ggaatgtgtg tgtatgtgta tgngaattgtg tgtgtgt  
 297

<210> 782  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 782  
 Xaa Arg Val Pro Gly Met Cys Val Cys Val Cys Met Tyr Val  
 1 5 10 15  
 Cys Met Glu Cys Val Cys Met Xaa Ile Cys Val Cys Met Xaa Met Cys

20 25 30  
 Val Cys Val Trp Asn Val Cys Met Glu Cys Val Ser Val Tyr Gly Ile  
 35 40 45  
 Cys Val Ser Met Xaa Met Cys Val Cys Val Trp Asn Val Ser Asn Val  
 50 55 60  
 Cys Leu Cys Val Arg Asn Val Cys Val Trp Asn Val Phe Thr Cys Met  
 65 70 75 80  
 Cys Leu Glu Cys Val Cys Met Glu Cys Val Cys Met Cys Met Xaa Met  
 85 90 95  
 Cys Val Cys

&lt;210&gt; 783

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 783

accggtgacg taactgctcc cgctggcagc ttcgagggcg atgtcgattt gcgtgcccgg  
 60  
 caccgggtcg agtgagctgc ccagcagcaa gccaccaca tcggtgacca gaccgatcac  
 120  
 tttgttgagc acgtcgatga cgggcaactt caaggaaatc caggtgcgga cttgcgcggt  
 180  
 ccgcacaaaa atcggtctgg tgctgatcaa ctgcgggttg ccaatcgag aatttgcgcg  
 240  
 gttcgatgac acgtgtcttc accgtgatat tcagcagccc cagtacgtcc accggcaact  
 300  
 cgacggccac cgcgtctggc ttgttgga gctgcacaaa gccctgaatc aggttgaaca  
 360  
 gttgcaggtt gacgtccagg gcgctcttgt ccgtgccgtt ttgtatattg atcaggtcgc  
 420  
 ccaggtgcag gatctgcgtg cctggggcaa tcagcttgat tgcttcgagg ttattgatca  
 480  
 ccacctggac cgcattaccg cccagcttga gcacatcgat ggcggcctgg atcaactggc  
 540  
 cgacggtcgc gtcggtcttg agcaactggt cgtagttgcc ggcgctgacg ttgaggcgga  
 600  
 tggccgacgc gt  
 612

&lt;210&gt; 784

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 784

Met Ser Ile Cys Val Pro Gly Thr Gly Ser Ser Glu Leu Pro Ser Ser  
 1 5 10 15  
 Lys Pro Thr Thr Ser Val Thr Arg Pro Ile Thr Leu Leu Ser Thr Ser  
 20 25 30  
 Met Thr Gly Asn Phe Lys Glu Ile Gln Val Arg Thr Cys Ala Val Arg  
 35 40 45  
 Thr Lys Ile Gly Trp Val Ser Ile Asn Cys Gly Leu Pro Ile Ala Glu

```

      50              55              60
Phe Ala Arg Phe Asp Asp Thr Cys Leu His Arg Asp Ile Gln Gln Pro
65              70              75              80
Gln Tyr Val His Arg Gln Leu Asp Gly His Arg Ala Gly Phe Val Gly
      85              90              95
Gln Leu His Lys Ala Leu Asn Gln Val Glu Gln Leu Gln Val Asp Val
      100             105             110
Gln Gly Ala Leu Val Arg Ala Val Leu Tyr Ile Asp Gln Val Ala Gln
      115             120             125
Val Gln Asp Leu Arg Ala Trp Gly Asn Gln Leu Asp Cys Phe Glu Val
      130             135             140
Ile Asp His His Leu Asp Arg Ile Thr Ala Gln Leu Glu His Ile Asp
145             150             155             160
Gly Gly Leu Asp Gln Leu Ala Asp Gly Arg Val Gly Leu Glu Gln Leu
      165             170             175
Val Val Val Ala Gly Ala Asp Val Glu Ala Asp Gly Arg Arg
      180             185             190

```

<210> 785  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

```

<400> 785
accttggaact acttcactat cgaccctcgg ctaggcgacg acgatgactt cgatcacctg
60
cttcaggccg cccacgctcg tggctctgtca gtactgctcg acggggtggt caaccacgtc
120
tcgcgtcgca accgcatcgt gcaggatgcg cagagtgtcg ggccagattc agacgccggc
180
cgtatgggttc gctgggtgtga ggggcgcctc gacgttttcg aggggtcatag tgacctggtc
240
gcactcaacc acgacaaccc cgcagtgcgg gaacatgtca cccggatcat gaactattgg
300
tgcgggtcgcg gtgttgacgg ctggcgggctg gacgccgcta ttccgtcaat cctgagttct
360
gggctgcggg gctgcctccg gtgcgagaga agcgccctga cgtgagga
408

```

<210> 786  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

```

<400> 786
Thr Leu Asp Tyr Phe Thr Ile Asp Pro Arg Leu Gly Asp Asp Asp Asp
1      5      10      15
Phe Asp His Leu Leu Gln Ala Ala His Ala Arg Gly Leu Ser Val Leu
      20      25      30
Leu Asp Gly Val Val Asn His Val Ser Arg Arg Asn Arg Ile Val Gln
      35      40      45
Asp Ala Gln Ser Ala Gly Pro Asp Ser Asp Ala Gly Arg Met Val Arg
      50      55      60
Trp Cys Glu Gly Arg Leu Asp Val Phe Glu Gly His Ser Asp Leu Val

```

<400> 789

acgcgtgaag ttgcagcagc aagcaatctg cctcgcttct ggtgcccacc gaaaccaagg  
 60  
 tctgccagac agcagcgctg ggacctctcc cctccccage aggatgggccc ggctctggaa  
 120  
 gcacgaggtg ttccaaagt caaacaagct gctgttaaata aattattccc aaacgcaaaa  
 180  
 gcccttgctg gtttgcttgc ttgctttttt ctttttttgc ctcgcacaga tatcgctagg  
 240  
 gcagagtatt gacatttcgt tttctttttg ttatgggtga taaagcacgg tgtttcttgt  
 300  
 gagtgatgc ctgtatttcc ctgcagagct gattgccagt ccatttttct ctatcccatc  
 360  
 cccattttc  
 369

<210> 790

<211> 114

<212> PRT

<213> Homo sapiens

<400> 790

Met	Asp	Trp	Gln	Ser	Ala	Leu	Gln	Gly	Asn	Thr	Gly	Ile	His	Ser	Gln
1				5				10					15		
Glu	Thr	Pro	Cys	Phe	Ile	Thr	His	Asn	Lys	Lys	Lys	Thr	Lys	Cys	Gln
		20						25					30		
Tyr	Ser	Ala	Leu	Ala	Ile	Ser	Val	Arg	Gly	Lys	Lys	Arg	Lys	Lys	Gln
		35					40						45		
Ala	Ser	Lys	Pro	Ala	Arg	Ala	Leu	Ala	Phe	Gly	Asn	Asn	Tyr	Leu	Thr
		50				55					60				
Ala	Ala	Cys	Leu	His	Phe	Gly	Thr	Pro	Arg	Ala	Ser	Arg	Ala	Gly	Pro
65					70				75					80	
Ser	Cys	Trp	Gly	Gly	Glu	Arg	Ser	Gln	Arg	Cys	Cys	Leu	Ala	Asp	Leu
			85					90						95	
Gly	Phe	Gly	Gly	His	Gln	Lys	Arg	Gly	Arg	Leu	Leu	Ala	Ala	Ala	Thr
			100					105						110	

Ser Arg

<210> 791

<211> 420

<212> DNA

<213> Homo sapiens

<400> 791

nctctgacca aaaggaaggt atatgaaaac acaacactag gcttcattgt tgaagttgaa  
 60  
 ggtcttccag ttcttggtgt gaaatggtat cgaaataaat ctttactaga gccagatgaa  
 120  
 agaatcaaaa tggaagaggt gggtaatgtg tggtcactgg aaatttctaa cattcaaaaa  
 180  
 ggagaagggg gagagtacat gtgtcatgct gtaaacaatca taggggaagc aaagagcttt  
 240  
 gcaaatgtag acataatgcc ccaggaagaa agagtgggtgg cactaccacc tccagtaaca  
 300

catcagcatg tcattggagtt tgatttggaa cacaccacat catcaagaac accttctcct  
 360  
 caagaaattg tcctggaagt tgaattaagt gaaaaagacg ttaaagaatt tgagaagcag  
 420

<210> 792  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 792  
 Thr Lys Arg Lys Val Tyr Glu Asn Thr Thr Leu Gly Phe Ile Val Glu  
 1 5 10 15  
 Val Glu Gly Leu Pro Val Pro Gly Val Lys Trp Tyr Arg Asn Lys Ser  
 20 25 30  
 Leu Leu Glu Pro Asp Glu Arg Ile Lys Met Glu Arg Val Gly Asn Val  
 35 40 45  
 Cys Ser Leu Glu Ile Ser Asn Ile Gln Lys Gly Glu Gly Gly Glu Tyr  
 50 55 60  
 Met Cys His Ala Val Asn Ile Ile Gly Glu Ala Lys Ser Phe Ala Asn  
 65 70 75 80  
 Val Asp Ile Met Pro Gln Glu Glu Arg Val Val Ala Leu Pro Pro Pro  
 85 90 95  
 Val Thr His Gln His Val Met Glu Phe Asp Leu Glu His Thr Thr Ser  
 100 105 110  
 Ser Arg Thr Pro Ser Pro Gln Glu Ile Val Leu Glu Val Glu Leu Ser  
 115 120 125  
 Glu Lys Asp Val Lys Glu Phe Glu Lys Gln  
 130 135

<210> 793  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 793  
 nacgcgtgcc gggtctcggga aattcattat gggaatgtgc gcgttgtgga gatgctcaga  
 60  
 ccgcgaacag tactgcggga acccaaacga tcatttttaa cccagacgt ccctgaacca  
 120  
 aagccaaagt ctacaggtca ctggggcaga ggccgcccga aaccagcttc ccctccgggc  
 180  
 ctaggcgcgc caggtccccg ccagccggg gcgatccttt ggtcggacag tgaggttggg  
 240  
 agcccaccgc acccaagtcc gccgcatcca cccggcgcag gcgacccccg acgggcagcc  
 300  
 gctcaccttc tcctggcccc gggttcagga aaactgcctg gaggtggccg gggttcccta  
 360  
 gcggaggctg ggcggcgggc ttgcgcctg cctcagtctc cccatccgtg gcccggggga  
 420  
 tggagcccgc tgcgcgcaga ggctgcggca ggtcccagcc aggtgcctg gaacgtgga  
 479

<210> 794

<211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 794  
 Xaa Ala Cys Arg Phe Ser Glu Ile His Tyr Gly Asn Val Arg Val Val  
 1 5 10 15  
 Glu Met Leu Arg Pro Arg Thr Val Leu Arg Glu Pro Lys Arg Ser Phe  
 20 25 30  
 Leu Thr Pro Asp Val Pro Glu Pro Lys Pro Lys Ser Thr Gly His Trp  
 35 40 45  
 Gly Arg Gly Arg Pro Lys Pro Ala Ser Pro Pro Gly Leu Gly Ala Pro  
 50 55 60  
 Gly Pro Arg Pro Ala Gly Ala Ile Leu Trp Ser Asp Ser Glu Val Gly  
 65 70 75 80  
 Ser Pro Pro His Pro Ser Pro Pro His Pro Pro Gly Ala Gly Asp Pro  
 85 90 95  
 Arg Arg Ala Ala Ala His Leu Leu Leu Ala Pro Ala Ser Gly Lys Leu  
 100 105 110  
 Pro Gly Gly Gly Arg Gly Ser Leu Ala Glu Ala Gly Arg Arg Ala Ser  
 115 120 125  
 Arg Leu Pro Gln Ser Pro His Pro Trp Pro Gly Gly Trp Ser Pro Leu  
 130 135 140  
 Arg Ala Glu Ala Ala Ala Gly Pro Ser Gln Val Pro Trp Asn Val  
 145 150 155

<210> 795  
 <211> 1418  
 <212> DNA  
 <213> Homo sapiens

<400> 795  
 gccggcgcg gggaggccgg ggctgcagg cccccggtac gacaagatcc ggactccggc  
 60  
 ccggactacg aggcgctgcc ggctggagcc actgtcacca cgcacatggt ggcaggcgcc  
 120  
 gtggcagggg tcttgagca ctgcgtgatg taccatcg actgcgtcaa gaccgggatg  
 180  
 cagagtctac agcctgaccc agctgcccgc tatcgcaatg tgttgagggc cctctggagg  
 240  
 attataagaa cggagggcct atggaggccc atgagggggc tgaacgtcac agcaacaggc  
 300  
 gcagggcctg ccacgcctt ttattttgcc tgctacgaaa agttaaaaaa gacattgagt  
 360  
 gatgtaatcc accctggggg caatagccat attgccaatg gtgcggccgg gtgtgtggca  
 420  
 acattacttc atgatgcagc catgaaccct gcggaaggct gatctgctga cttggggctc  
 480  
 tgaatctgga tactctccat caccggttgg ctgctgtcac catttccttc ctggtgatg  
 540  
 gcactactag tggtaagca gaggatgcag atgtacaact caccatacca ccgggtgaca  
 600  
 gactgtgtac gggcagtgtg gcaaaatgaa ggggcccggg ccttttacgg cagctacacc  
 660

acccagctga ccatgaacgt tcctttccaa gccattcact tcatgaccta tgaattcctg  
 720  
 caggagcact ttaaccccca gagacggtac aacccaagct cccacgtcct ctctggagct  
 780  
 tgcgcaggag ctgtagctgc cgcagccaca accccactgg acgtttgcaa aacactgctc  
 840  
 aacacccagg agtccttggc tttgaactca cacattacag gacatatcac aggcattggc  
 900  
 agtgccttca ggacggtata tcaagtaggt ggggtgaccg cctatttccg aggggtgcag  
 960  
 gccagagtaa tttaccagat cccctccaca gccatcgcat ggtctgtgta tgagttcttc  
 1020  
 aaatacctaa tcactaaaag gcaagaagag tggagggctg gcaagtgaag tagcactgaa  
 1080  
 cgaagccagg ggttcagatg aactgctgc atcctggtca cattctctgt ctctggaat  
 1140  
 gctccacct caagtggagt tagaaggaag gtagaggggc tctccccag gattttgggt  
 1200  
 ttttgactaa caccagttcc tgccaacctc tgttgccacc acctttcctt ccaggcccta  
 1260  
 agcacgtgca gcaaagcaca ccacagcacc tttgataacc tctctccatc ctgggcctga  
 1320  
 tgacctgctc tagactgtta tagagggata agcagctcat tcccctgggt cctaataaaa  
 1380  
 agcctttaa ttaaaaaaaaa aaaaaaaaaa aaaaaaaaa  
 1418

&lt;210&gt; 796

&lt;211&gt; 176

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 796

Met	Ala	Leu	Leu	Val	Lys	Gln	Arg	Met	Gln	Met	Tyr	Asn	Ser	Pro
1			5					10					15	
Tyr	His	Arg	Val	Thr	Asp	Cys	Val	Arg	Ala	Val	Trp	Gln	Asn	Glu
			20					25					30	Gly
Ala	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn
			35				40					45		Val
Pro	Phe	Gln	Ala	Ile	His	Phe	Met	Thr	Tyr	Glu	Phe	Leu	Gln	Glu
			50			55					60			His
Phe	Asn	Pro	Gln	Arg	Arg	Tyr	Asn	Pro	Ser	Ser	His	Val	Leu	Ser
65					70				75					80
Ala	Cys	Ala	Gly	Ala	Val	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp
					85				90					95
Cys	Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Ser	Leu	Ala	Leu	Asn	Ser
			100					105					110	His
Ile	Thr	Gly	His	Ile	Thr	Gly	Met	Ala	Ser	Ala	Phe	Arg	Thr	Val
		115				120						125		Tyr
Gln	Val	Gly	Gly	Val	Thr	Ala	Tyr	Phe	Arg	Gly	Val	Gln	Ala	Arg
		130				135					140			Val
Ile	Tyr	Gln	Ile	Pro	Ser	Thr	Ala	Ile	Ala	Trp	Ser	Val	Tyr	Glu
145					150					155				Phe
Phe	Lys	Tyr	Leu	Ile	Thr	Lys	Arg	Gln	Glu	Glu	Trp	Arg	Ala	Gly
														Lys



165

170

175

<210> 797  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 797  
 aaatttaccg gcggcaaaac ccacgtcacc gactacacca acgcctcgcg caccatgctc  
 60  
 ttcaacatcc acacgctgga gtgggatgcg aagatgctgg agattctcga cgtgccgcgc  
 120  
 gagatgctgc cggaagttaa gtcgtcttca gaaatctacg gccgcaccaa aagcggtatc  
 180  
 gctatcggcg gcatcgcggg cgaccaacag gctgctctgt tcggccagat gtgctgggaa  
 240  
 gccgggcagg ccaagaacac ttatggcacc ggctgcttcc tgctgatgaa caccggcgac  
 300  
 aaagccgtca aatccaaaca cggcatgctc accaccatcg cctgcgggtcc acgcggcgaa  
 360  
 gtggcttatg cgctggaagg cgcggtgttc aacggtggtt cccccgtgca gtggctgcgt  
 420  
 gatgagctga agatcatcgc ggacgccacc gacaccgaat acttcgccgg caaggtcaag  
 480  
 gacagcaacg gcgtctacct ggtgccggcc ttaccggcc tgggcgctcc gtactgggac  
 540  
 ccgtatgccc gtggcgcttt gtttggcctg actcgtggcg tacgc  
 585

<210> 798  
 <211> 195  
 <212> PRT  
 <213> Homo sapiens

<400> 798  
 Lys Phe Thr Gly Gly Lys Thr His Val Thr Asp Tyr Thr Asn Ala Ser  
 1 5 10 15  
 Arg Thr Met Leu Phe Asn Ile His Thr Leu Glu Trp Asp Ala Lys Met  
 20 25 30  
 Leu Glu Ile Leu Asp Val Pro Arg Glu Met Leu Pro Glu Val Lys Ser  
 35 40 45  
 Ser Ser Glu Ile Tyr Gly Arg Thr Lys Ser Gly Ile Ala Ile Gly Gly  
 50 55 60  
 Ile Ala Gly Asp Gln Gln Ala Ala Leu Phe Gly Gln Met Cys Val Glu  
 65 70 75 80  
 Ala Gly Gln Ala Lys Asn Thr Tyr Gly Thr Gly Cys Phe Leu Leu Met  
 85 90 95  
 Asn Thr Gly Asp Lys Ala Val Lys Ser Lys His Gly Met Leu Thr Thr  
 100 105 110  
 Ile Ala Cys Gly Pro Arg Gly Glu Val Ala Tyr Ala Leu Glu Gly Ala  
 115 120 125  
 Val Phe Asn Gly Gly Ser Pro Val Gln Trp Leu Arg Asp Glu Leu Lys  
 130 135 140  
 Ile Ile Ala Asp Ala Thr Asp Thr Glu Tyr Phe Ala Gly Lys Val Lys

145                                      150                                      155                                      160  
 Asp Ser Asn Gly Val Tyr Leu Val Pro Ala Phe Thr Gly Leu Gly Ala  
                                          165                                      170                                      175  
 Pro Tyr Trp Asp Pro Tyr Ala Arg Gly Ala Leu Phe Gly Leu Thr Arg  
                                          180                                      185                                      190  
 Gly Val Arg  
                                          195

<210> 799  
 <211> 2152  
 <212> DNA  
 <213> Homo sapiens

<400> 799  
 nntttttttt tttttttgat ggtgcatgta gttttattta tgtgttttca tctggaaaac  
 60  
 caagtgtccc agcagcatga ctgaacatca ctacttccc ctacttgatc tacaaggcca  
 120  
 acgccgagag cccagaccag gattccaaac aactgcacg agaatattgt ggatccgctg  
 180  
 tcaggtaagt gtccgtcact gaccagacg ctgttacgtg gcacatgact gtacagtgcc  
 240  
 acgtaacagc actgtacttt tctcccataa acagttacct gccatgtatc tacatgattc  
 300  
 agaacatttt gaacagttaa ttctgacact tgaataatcc catcaaaaac cgtaaaatca  
 360  
 ctttgatgtt gtaacgacaa catagcatca ctttacgaca gaatcatctg gaaaaacaga  
 420  
 acaacgaata catacatctt aaaaaatgct ggggtgggccc aggcacagct cacgcctgta  
 480  
 atcccagcac tttgggaggg tgaggcgggt ggatcacgta atcccagcac tttgaggggc  
 540  
 agaggtggac agatcatgag gtcaagagat caagaccatc ctggtcaaaa tgggtgaaacc  
 600  
 ccgtctctac taaaaatata aaaattagct gagcttagtg gcacacacct gtagtcccag  
 660  
 ctacttggga ggctgaggca ggagaatcgc ttgaaccag gagacacagg ctgcagtgc  
 720  
 tcgagatcac gccactgcac tccagcctgg cgacagagcg agactccatc tcaaaaaaaaa  
 780  
 aaaccaacaa aaaaactggg gtgaaaatct aacggataat tcagcattgc cgcatagaaa  
 840  
 cctccgcaaa accggccaaa caaacgcgga caggcggccc tggcgtcagc gcacgacagt  
 900  
 cacgtgggga ggggcagtgg ccaggctcggc cttggacggg tacaccacct tcaggctccc  
 960  
 ttccagatcc accaccgga cctgctccac caccagaagg gagggcccgt cctttccagc  
 1020  
 actgggatcc gttgtgggat ctggaagttg tccagagact gcacggcctt cagtatctga  
 1080  
 gagtgatcct tcctctttat ttctaaagt gtacttttct atttctgcc ttttcagaat  
 1140  
 gagggcatcc atgacatcct tgcaaatctg cagactggtg gcaattgtta cttccaaaaa  
 1200

caaatcagaa gtcgttttct taacctttgt cttctcactg ttggttattg gtgggaagga  
 1260  
 aatcacatca cgtctgcat ccacaagaca cgggtaattt tcatttccat ccagcaagt  
 1320  
 aaggtatctg tgcaggcccc acacactctg ccgcttcttc tgcttctct gctcctcggc  
 1380  
 ctccagctgc agctgccgca ccagctcctt ggccttggtt tctttccgcc ccaaggggac  
 1440  
 aatcttgagg tctgtgggg gcccggcgca gtacagcagg ggcccttga cggcacggag  
 1500  
 ctctgggtg gcaaggggtg cagccgtcct cttctcacag agatcttctt ggagcttggt  
 1560  
 ctgcgaggtg aggaagcgtt tgagtgcatt ccctggctgc aggtccatgc ctgcgaccac  
 1620  
 ggccccaca atgtagggcc gcacatcccg gacctcgggg ctactctga ctgtcagagg  
 1680  
 tacgggggtt tcagagacgt gcaggaccct gagcagcagc cggccggcat ctcccacgtc  
 1740  
 ctgctcctcc ccacaccac cttcccgcct ctgcttcttc tccctcctct tctcctggct  
 1800  
 ctcttcttcc tccgagccct cggcacggcc cttgcccttc ccgccaccac ggcctccgac  
 1860  
 gcgcaggtac tccaggatgg atctggtctg gcagccgctg accatcttct ccaggcgctt  
 1920  
 gtccctcagc ttgttccac ggaaattgat ctcttgagc ttggggcagt ccgcaagctc  
 1980  
 tgcagggatc tcgtcagct ggttggttga gaggtccaac gtcttgagc agggcaggtg  
 2040  
 ggcgatgtcg gggctgagtt ctcggaggca gttgtcagca gccgccagtt cactgagcag  
 2100  
 gggcagcgcg cggggcgaa agagctcggc gggaaaggag tctaggcaat tg  
 2152

&lt;210&gt; 800

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 800

Cys	Cys	Asn	Asp	Asn	Ile	Ala	Ser	Leu	Tyr	Asp	Arg	Ile	Ile	Trp	Lys
1				5					10					15	
Asn	Arg	Thr	Thr	Asn	Thr	Tyr	Ile	Leu	Lys	Asn	Ala	Gly	Val	Gly	Gln
			20					25					30		
Ala	Gln	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp	Glu	Ala	Glu	Ala	Gly
		35					40				45				
Gly	Ser	Arg	Asn	Pro	Ser	Thr	Leu	Arg	Gly	Arg	Gly	Gly	Gln	Ile	Met
	50					55				60					
Arg	Ser	Arg	Asp	Gln	Asp	His	Pro	Gly	Gln	Asn	Gly	Glu	Thr	Pro	Ser
65				70					75					80	
Leu	Leu	Lys	Ile	Gln	Lys	Leu	Ala	Glu	Leu	Ser	Gly	Thr	His	Leu	
				85					90					95	

&lt;210&gt; 801

&lt;211&gt; 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 801

```

nntcatgaat cgttataaac acaatgggta gtgtatatca tatctatagg agataactatg
60
tatcaaatta atcagctgtc tttttcttat gaaacaaaag aagtgttaaa gaatatttct
120
gtaacatttc ctaccaataa aataacagcc ataattggac cgaatggatg tggtaagtct
180
accctactta gccatctata tcgacttcat tcaacaaaaa acaaaatcac attaaacgga
240
aaaccttttag agtcttataa aggtcgcgaa tttgctcaat tggtagcagt cttaacacaa
300
tctagagacg ctatgattga tgattttctc gtaaaagata tcgttctcat gggacgggat
360
ccgtacaaac aacactttgg cacctatagt tctgaagatg ttaaaattgc agagcattat
420
atgn
424

```

&lt;210&gt; 802

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 802

```

Met Tyr Gln Ile Asn Gln Leu Ser Phe Ser Tyr Glu Thr Lys Glu Val
1           5           10           15
Leu Lys Asn Ile Ser Val Thr Phe Pro Thr Asn Lys Ile Thr Ala Ile
20           25           30
Ile Gly Pro Asn Gly Cys Gly Lys Ser Thr Leu Leu Ser His Leu Tyr
35           40           45
Arg Leu His Ser Thr Lys Asn Lys Ile Thr Leu Asn Gly Lys Pro Leu
50           55           60
Glu Ser Tyr Lys Gly Arg Glu Phe Ala Gln Leu Val Ala Val Leu Thr
65           70           75           80
Gln Ser Arg Asp Ala Met Ile Asp Asp Phe Leu Val Lys Asp Ile Val
85           90           95
Leu Met Gly Arg Asp Pro Tyr Lys Gln His Phe Gly Thr Tyr Ser Ser
100          105          110
Glu Asp Val Lys Ile Ala Glu His Tyr Met
115          120

```

&lt;210&gt; 803

&lt;211&gt; 6863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 803

```

gcgcggcccg gctggccgtc tgcgcaccct ctctcccctc ggctctttcc taggaaagct
60
gagcctcata gcttccggga gaagggtttc cggaagaaac ctccagtctg tgcagtatgt
120

```

aaggtgacca tcgatgggac aggcgtttcg tgcagagtct gcaaggtggc gacgcacaga  
180  
aaatgtgaag caaaggtgac ttcagcctgt caggccttgc ctcccgtgga gttgcggcga  
240  
aacacggccc cagtcaggcg catagagcac ctgggatcca ccaaactctt gaaccactca  
300  
aagcagcgca gcactctgcc caggagcttc agcctggacc cgctcatgga gcggcgctgg  
360  
gacttagacc tcacctacgt gacggagcgc atcttggccg ccgccttccc cgcgcgggccc  
420  
gatgaacagc ggcaccgggg ccacctgcgc gagctggccc atgtgctgca atccaagcac  
480  
cgggacaagt acctgctctt caacctttca gagaaaaggc atgacctgac ccgcttaaac  
540  
cccaaggttc aagacttcgg ctggcctgag ctgcatgctc cacccttggga caagctgtgc  
600  
tccatctgca aagccatgga gacatggctc agtgctgacc cacagcacgt ggtcgtacta  
660  
tactgcaagg gaaacaaggg caagcttggg gtcacgctt ctgcctacat gcactacagc  
720  
aagatctctg caggggcgga ccaggcactg gccactctta ccatgcggaa attctgcgag  
780  
gacaaggtgg ccacagaact gcagccctcc cagcgtcgat atatcagcta cttcagtggg  
840  
ctgctatctg gctccatcag aatgaacagc agcctctctt tcctgcaacta tgtgctcatc  
900  
cccattgctg cagcctttga acctggcaca ggcttccagc ccttccttaa aatctaccag  
960  
tccatgcagc ttgtctacac atctggagtc tatcacattg caggccctgg tcccagcag  
1020  
ctttgcatca gcctggagcc agcctcctc ctcaaaggcg atgtcatggt aacatgttat  
1080  
cacaaggggt gccggggcac agaccggacc ctctgttcc gagtccagtt ccacacctgc  
1140  
accatccacg gaccacagct cactttcccc aaggaccagc ttgacgaggc ctggactgat  
1200  
gagaggttcc ccttccaagc ctccgtggag tttgtcttct cctccagccc cgagaagatc  
1260  
aaaggcagca ctccacggaa cgacccctcg gtctctgtcg actacaacac cactgagcca  
1320  
gccgtgcgct gggactccta tgagaacttc aaccagcacc acgaggacag tgtggatggc  
1380  
tccttgaccc acaccgggg tcccctggat ggcagtcctt atgcccaggt gcagcggcct  
1440  
ccccggcaga ccccccggc accctctcca gagcctccac cccccccat gctctctgtc  
1500  
agcagcgact caggccattc ctccacgctg accacagagc cggctgctga gtcccctggc  
1560  
cggccgcccc ctacagctgc tgaacggcag gagctggatc gcctcctagg aggctgcgga  
1620  
gtggccagtg ggggcgggg agctgggcgc gagacggcca tcctagatga cgaagagcag  
1680  
cccactgtgg gcggaggccc ccacctcgga gtgtatccag gccataggcc tggcctcagc  
1740

cgccactgct cctgccgcca gggctaccgg gagccctgcg gggttcccaa tgggggctac  
1800  
taccggccag agggaaacct ggagaggagg cgactggcct acgggggcta tgagggatcc  
1860  
ccccagggt acgccgaggc ctgatggag aagaggcgcc tctgccgac gctgtcagag  
1920  
gggctatacc cctaccacc tgagatgggg aaaccagcca ctggggactt tggctaccgc  
1980  
gccccaggct accgggaggt ggtcatcctg gaggaccctg ggctgcctgc cctataccca  
2040  
tgcccagcct gcgaggagaa gctggcgctg cctacagcag ccttgatgg actgcggctg  
2100  
gagagggagg ctggagaagg gtgggcaagt gaggtggca agcctctcct gcacccagt  
2160  
cggcctgggc acccgctgcc tctgctcttg cctgcctgtg ggcatcacca tgccccgatg  
2220  
cctgactaca gctgcctgaa gccacccaag gcaggcgagg aagggcacga gggctgctcc  
2280  
tacaccatgt gccccgaagg caggtatggg catccagggt accctgccct ggtgacatac  
2340  
agctatggag gagcagttcc cagttactgc ccagcatatg gccgtgtgcc tcatagctgt  
2400  
ggctctccag gagagggcag agggatatcc agccctgggt cccactcccc acgggctggc  
2460  
tccatttccc cgggcagccc gccctatcca caatctagga agctgagcta cgagatccct  
2520  
acggaggagg gaggggacag gtacccattg cctgggcacc tggcctcagc aggaccttg  
2580  
gcatctgcag agtcgctgga gccggtgtcc tggagggagg gccccagtgg gcacagcaca  
2640  
ctgcctcggc cccccgaga tgccccatgc agtgcttcgt cagagttgtc tggctccctc  
2700  
acgcccctgc acaccagcag tccagtccag ggcaaggaaa gcacccggcg acaggacacc  
2760  
aggcccccca cctcagcgcc cactcagaga ctgagtcctg gcgaggcctt gccccctgtt  
2820  
tcccaggcag gcaccgaaa ggcccctgag ctgccgtcgg gaagtgggccc tgagcctctg  
2880  
gcccctagcc cagtctctcc gaccttcct cccagctcgc ccagtgactg gcctcaggaa  
2940  
aggagtccag ggggccactc agatggcgcc agtcctcgga gccctgtgcc caccacactt  
3000  
cctggcctcc gccacgcccc ctggcaaggc cctcgaggcc cccccgacag cccagatggg  
3060  
tctccctca ctcctgtgcc ttcccagatg ccttggttg tggccagccc agagccgcct  
3120  
cagagctcac ctacacctgc tttccccctg gctgcctcct atgacaccaa tggccttagc  
3180  
cagccccac ttcctgagaa acgccacctg cccgggcccgg ggcaacagcc aggacctgg  
3240  
ggcccagagc aggcacatc gccagccaga ggcacagtc accatgtcac ctctgcacct  
3300  
ctgctctcag ataatgtccc ccaaaccaca gagcctccta cacaagagag ccaaagcaat  
3360

gtcaagtttg tccaggatac atccaagttc tgggtacaagc cacacctgtc ccgtgaccaa  
3420  
gccattgccc tgctgaagga caaggaccct ggggccttcc tgatcaggga cagtcattca  
3480  
ttccaaggag cttatgggct ggccctcaag gtggccacac cgccaccagc tgcccagccc  
3540  
tggaaagggg accccgtgga acagctggtc cgccatttcc tcatcgagac tgggccc aaa  
3600  
ggggtgaaga tcaagggtctg cccagtgag ccctactttg gcagcctgtc cgccttggtc  
3660  
tcccagcact ccatctcccc catctccctg ccctgtgtgc tgcgcattcc cagcaaagat  
3720  
cctctggaag agaccccaga ggctccagtg cccaccaaca tgagcacagc ggcagacctc  
3780  
ctgcgtcagg gtgctgcctg cagcgtgtc tacttgacct cagtggagac agagtcactg  
3840  
acggggcccc aagctgtggc cggggccagc tctgcagctc tgagctgtag cccccgccc  
3900  
acaccagctg ttgtccactt caagggtgtca gcccaggga ttacttgac ggacaaccaa  
3960  
aggaagctct tctttcgccg ccattatcca gtgaacagca tcaccttctc cagcactgac  
4020  
cctcaagacc ggagatggac caaccagac gggaccacct ccaagatctt tggtttcgtg  
4080  
gccaagaagc cgggaagccc ctgggagaat gtgtgtcacc tctttgcaga gcttgaccca  
4140  
gatcagcctg ctggcgccat tgtcaccttc atcaccaaag ttctactggg ccagagaaaa  
4200  
tgaaggaagg ccacaagctc agagcccaca tcaactgtc cccctccca gcaccccaca  
4260  
gccctcacat cccctggcct ggaccagga gaccaggaag aaagcacctt cccttaggaa  
4320  
tgaggagtgg gcatcaggcc tgggacactg ctctccttcc ccgccccag cctgctaagt  
4380  
taagtggaca ggcccacaag atgaccttgc atgtgagcag atggcagaga tgggtgtgtg  
4440  
aggggtgagg aggcacagc agttgagccc cgaaggagat caggcagccc cacctgcagg  
4500  
agaacgtcag ccctccaggg gattacaggg gatcagcccc tgccagttec acccagctgc  
4560  
agggtgccagc acggcaggga tgggagaggg gtggggagcg agtcactgcc tcctctgagc  
4620  
agagattcag agtaggatca catgaatagg ggaaaaaaga gagtctatct ttgtctaata  
4680  
ataaagaatt tctataaact ttagccgaaa ttggagtcaa cacttattca caggaaggtc  
4740  
aaagcctcat ctcccagggg acgtatctgt gctcaggcct gtagccaggc ccatggaaca  
4800  
tatgattccc atccctggcc caacattggt ccacatctcc ccatgagcaa getgccttcg  
4860  
gctgccccca tccagcagtc ctgttcctag cccagtggaac tagaaaggct cctgggtccg  
4920  
gccatactga taaatacggg aactccatct ttatcggtg tataaacatc tctgggtctgt  
4980

acatacattt catacatcgt aggggtgggaa gcgagggcca aaggagggcc cagcagcaca  
5040  
acagctcacc cgctttccct acagccctac ccgctctgtg caaaccaagg ccaacagctc  
5100  
ctgctgcctc ttcctccctg gaaaagtcac tgttacgggg agggggccag gggttgaagg  
5160  
attagaagga gatagagggc ttggtgggga ggacacatgt aagtgctaga atcaaact  
5220  
gaagcgaaac aggcaactgg cacaagcagc aagctgaggc atgggacggg gcaggaaaag  
5280  
gggaggagg ggccacgctg cccctctggg cttgctcagc taaggctctg gggctctgcc  
5340  
ctcacgctgg caggagaca ggccccagag cctcagcccc aataccggg agctagggac  
5400  
atgggtggca ctggtaaaga aaggatggaa ggggagaaag gagtgaaggc cctagtgtcc  
5460  
tgtcacctca cagccctct ctcttaaaca tgcaacaggc acccaccat gtgggtccag  
5520  
gtatggggag ccagagacct agatcctctg tgggtgcctga gcagggtggg gtggggagcc  
5580  
agctctcaag ggaaagatgg agagcctaga ggagtcttcc tggggcagca gccagtga  
5640  
ggacagagat gaccaaagag aggtcccctg gccctgccag gggtatgaca gcagcaactg  
5700  
gttcacacaa ccaggaaaga aaacaagaaa gaggaattca aggagaaata ccatggtgag  
5760  
taggggaggg ggctgtctac tctaccctct acaaagcatc atgcccgaat agcagctgag  
5820  
ataggggtgct cagcctctc caccacaca gggccggtga gggaaagggg gaccagaag  
5880  
cccactgacc aaagcgagtg ggaccacca cataccaaca ccattctttg ggtccattcc  
5940  
tgtccaacca gggactcagg ccagggact gacaacagtg gcagcaccag gtcagaaacg  
6000  
tgggcacaga gaagcgtgac aggggcctga gccagtgggg gcagagtgac tacacacctc  
6060  
caggggcctg ctgggtaaac gaagcctctg ggaagtcagg aactgggtgc ctggccagc  
6120  
agaggggtgag caggagagaag gagcaggtct ggaggggagg ccctagccac tcaaggggtg  
6180  
cagatctact ttgactttct cccgcagct cagcattcca atgggtggga agaagcctcc  
6240  
agaaggaaca acagcatcct tcttcccaat gatcttgcca ttccgagtga agaaaaccac  
6300  
caccttcctg cctcatgct ccggtctat ctcttccca tctcttctc ctctctctc  
6360  
ctctcttcc tcttccctt cctggtgcag gtacatgaca ttccgcacgt tccggacggc  
6420  
ccgggcagtc ggagacagga tcaactgtgc acaactgtca tcaactgtcc cctcactgtc  
6480  
caaaatgtag tcccggggga acatgattcc acagcccatg atgtcccctt tgtaacagcg  
6540  
tggcccaaag ggggtcccca caccactgcc atggaagatc ttcccatcgt ctgcatgata  
6600



agccacagac cctctgctcc agccagggtg cctgttcttg ggatagtcct tccgtgccag  
6660  
ccccagggcg atgtagcatt tctctccagg gtccacgac tccacctga agtagtggct  
6720  
gcgggtgctg agtgggtgcc gggcctgggc cagccccaca tccacgatgc ttttgcctt  
6780  
ccctaagtac tccagcagag tcccacagac tctgacatca tgtagccggc cccattcatc  
6840  
ctcgtagctg tccaccatca tga  
6863

<210> 804

<211> 1400

<212> PRT

<213> Homo sapiens

<400> 804

Ala	Arg	Pro	Gly	Trp	Pro	Ser	Ala	His	Pro	Leu	Ser	Pro	Arg	Leu	Phe
1				5					10					15	
Pro	Arg	Lys	Ala	Glu	Pro	His	Ser	Phe	Arg	Glu	Lys	Val	Phe	Arg	Lys
			20					25					30		
Lys	Pro	Pro	Val	Cys	Ala	Val	Cys	Lys	Val	Thr	Ile	Asp	Gly	Thr	Gly
			35				40					45			
Val	Ser	Cys	Arg	Val	Cys	Lys	Val	Ala	Thr	His	Arg	Lys	Cys	Glu	Ala
	50					55					60				
Lys	Val	Thr	Ser	Ala	Cys	Gln	Ala	Leu	Pro	Pro	Val	Glu	Leu	Arg	Arg
65					70					75				80	
Asn	Thr	Ala	Pro	Val	Arg	Arg	Ile	Glu	His	Leu	Gly	Ser	Thr	Lys	Ser
				85					90					95	
Leu	Asn	His	Ser	Lys	Gln	Arg	Ser	Thr	Leu	Pro	Arg	Ser	Phe	Ser	Leu
			100					105					110		
Asp	Pro	Leu	Met	Glu	Arg	Arg	Trp	Asp	Leu	Asp	Leu	Thr	Tyr	Val	Thr
		115					120					125			
Glu	Arg	Ile	Leu	Ala	Ala	Ala	Phe	Pro	Ala	Arg	Pro	Asp	Glu	Gln	Arg
		130				135					140				
His	Arg	Gly	His	Leu	Arg	Glu	Leu	Ala	His	Val	Leu	Gln	Ser	Lys	His
145					150					155				160	
Arg	Asp	Lys	Tyr	Leu	Leu	Phe	Asn	Leu	Ser	Glu	Lys	Arg	His	Asp	Leu
			165					170					175		
Thr	Arg	Leu	Asn	Pro	Lys	Val	Gln	Asp	Phe	Gly	Trp	Pro	Glu	Leu	His
		180						185					190		
Ala	Pro	Pro	Leu	Asp	Lys	Leu	Cys	Ser	Ile	Cys	Lys	Ala	Met	Glu	Thr
		195					200					205			
Trp	Leu	Ser	Ala	Asp	Pro	Gln	His	Val	Val	Val	Leu	Tyr	Cys	Lys	Gly
	210					215					220				
Asn	Lys	Gly	Lys	Leu	Gly	Val	Ile	Val	Ser	Ala	Tyr	Met	His	Tyr	Ser
225					230					235				240	
Lys	Ile	Ser	Ala	Gly	Ala	Asp	Gln	Ala	Leu	Ala	Thr	Leu	Thr	Met	Arg
			245						250					255	
Lys	Phe	Cys	Glu	Asp	Lys	Val	Ala	Thr	Glu	Leu	Gln	Pro	Ser	Gln	Arg
		260						265				270			
Arg	Tyr	Ile	Ser	Tyr	Phe	Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Arg	Met
	275						280					285			
Asn	Ser	Ser	Pro	Leu	Phe	Leu	His	Tyr	Val	Leu	Ile	Pro	Met	Leu	Pro

290                      295                      300  
 Ala Phe Glu Pro Gly Thr Gly Phe Gln Pro Phe Leu Lys Ile Tyr Gln  
 305                      310                      315                      320  
 Ser Met Gln Leu Val Tyr Thr Ser Gly Val Tyr His Ile Ala Gly Pro  
                     325                      330                      335  
 Gly Pro Gln Gln Leu Cys Ile Ser Leu Glu Pro Ala Leu Leu Leu Lys  
                     340                      345                      350  
 Gly Asp Val Met Val Thr Cys Tyr His Lys Gly Gly Arg Gly Thr Asp  
                     355                      360                      365  
 Arg Thr Leu Val Phe Arg Val Gln Phe His Thr Cys Thr Ile His Gly  
                     370                      375                      380  
 Pro Gln Leu Thr Phe Pro Lys Asp Gln Leu Asp Glu Ala Trp Thr Asp  
 385                      390                      395                      400  
 Glu Arg Phe Pro Phe Gln Ala Ser Val Glu Phe Val Phe Ser Ser Ser  
                     405                      410                      415  
 Pro Glu Lys Ile Lys Gly Ser Thr Pro Arg Asn Asp Pro Ser Val Ser  
                     420                      425                      430  
 Val Asp Tyr Asn Thr Thr Glu Pro Ala Val Arg Trp Asp Ser Tyr Glu  
                     435                      440                      445  
 Asn Phe Asn Gln His His Glu Asp Ser Val Asp Gly Ser Leu Thr His  
                     450                      455                      460  
 Thr Arg Gly Pro Leu Asp Gly Ser Pro Tyr Ala Gln Val Gln Arg Pro  
 465                      470                      475                      480  
 Pro Arg Gln Thr Pro Pro Ala Pro Ser Pro Glu Pro Pro Pro Pro  
                     485                      490                      495  
 Met Leu Ser Val Ser Ser Asp Ser Gly His Ser Ser Thr Leu Thr Thr  
                     500                      505                      510  
 Glu Pro Ala Ala Glu Ser Pro Gly Arg Pro Pro Pro Thr Ala Ala Glu  
                     515                      520                      525  
 Arg Gln Glu Leu Asp Arg Leu Leu Gly Gly Cys Gly Val Ala Ser Gly  
                     530                      535                      540  
 Gly Arg Gly Ala Gly Arg Glu Thr Ala Ile Leu Asp Asp Glu Glu Gln  
 545                      550                      555                      560  
 Pro Thr Val Gly Gly Gly Pro His Leu Gly Val Tyr Pro Gly His Arg  
                     565                      570                      575  
 Pro Gly Leu Ser Arg His Cys Ser Cys Arg Gln Gly Tyr Arg Glu Pro  
                     580                      585                      590  
 Cys Gly Val Pro Asn Gly Gly Tyr Tyr Arg Pro Glu Gly Thr Leu Glu  
                     595                      600                      605  
 Arg Arg Arg Leu Ala Tyr Gly Gly Tyr Glu Gly Ser Pro Gln Gly Tyr  
                     610                      615                      620  
 Ala Glu Ala Ser Met Glu Lys Arg Arg Leu Cys Arg Ser Leu Ser Glu  
 625                      630                      635                      640  
 Gly Leu Tyr Pro Tyr Pro Pro Glu Met Gly Lys Pro Ala Thr Gly Asp  
                     645                      650                      655  
 Phe Gly Tyr Arg Ala Pro Gly Tyr Arg Glu Val Val Ile Leu Glu Asp  
                     660                      665                      670  
 Pro Gly Leu Pro Ala Leu Tyr Pro Cys Pro Ala Cys Glu Glu Lys Leu  
                     675                      680                      685  
 Ala Leu Pro Thr Ala Ala Leu Tyr Gly Leu Arg Leu Glu Arg Glu Ala  
                     690                      695                      700  
 Gly Glu Gly Trp Ala Ser Glu Ala Gly Lys Pro Leu Leu His Pro Val  
 705                      710                      715                      720  
 Arg Pro Gly His Pro Leu Pro Leu Leu Leu Pro Ala Cys Gly His His

863

1155                      1160                      1165  
 Leu Lys Val Ala Thr Pro Pro Ser Ala Gln Pro Trp Lys Gly Asp  
 1170                      1175                      1180  
 Pro Val Glu Gln Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Lys  
 1185                      1190                      1195                      1200  
 Gly Val Lys Ile Lys Gly Cys Pro Ser Glu Pro Tyr Phe Gly Ser Leu  
 1205                      1210                      1215  
 Ser Ala Leu Val Ser Gln His Ser Ile Ser Pro Ile Ser Leu Pro Cys  
 1220                      1225                      1230  
 Cys Leu Arg Ile Pro Ser Lys Asp Pro Leu Glu Glu Thr Pro Glu Ala  
 1235                      1240                      1245  
 Pro Val Pro Thr Asn Met Ser Thr Ala Ala Asp Leu Leu Arg Gln Gly  
 1250                      1255                      1260  
 Ala Ala Cys Ser Val Leu Tyr Leu Thr Ser Val Glu Thr Glu Ser Leu  
 1265                      1270                      1275                      1280  
 Thr Gly Pro Gln Ala Val Ala Arg Ala Ser Ser Ala Ala Leu Ser Cys  
 1285                      1290                      1295  
 Ser Pro Arg Pro Thr Pro Ala Val Val His Phe Lys Val Ser Ala Gln  
 1300                      1305                      1310  
 Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His  
 1315                      1320                      1325  
 Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr Asp Pro Gln Asp Arg  
 1330                      1335                      1340  
 Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys Ile Phe Gly Phe Val  
 1345                      1350                      1355                      1360  
 Ala Lys Lys Pro Gly Ser Pro Trp Glu Asn Val Cys His Leu Phe Ala  
 1365                      1370                      1375  
 Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile Val Thr Phe Ile Thr  
 1380                      1385                      1390  
 Lys Val Leu Leu Gly Gln Arg Lys  
 1395                      1400

<210> 805  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

<400> 805  
 cccgagagag gcttcaatcc aatgagctgc cagctgaact tactcaacaa gcaaggaccc  
 60  
 atgggcagac ccaggaaatc tcgccaagta cccattcat gggaggccag cagcacaatt  
 120  
 agtcatccat ttacttatca agctgttact gtgtgtgcaa gaagcgccag agagatgata  
 180  
 tcaaggagct cttaccatgg ctggcataga ggggtgatg agtaagttcc gtctgcacaa  
 240  
 agagtcccta agcattcatt cttggctgac attcttggct caggggggtct ccatggcctt  
 300  
 gttccctcc tcgggtcacc agttcaggtc gagggggcct atgcttgga gggccacacc  
 360  
 aatggacctt gccaggacac tcagtcacag gtttcacacc caaagagaag acagcccaac  
 420  
 ccagaccctc aaaagagagc acctggggga agggagcgtg gaaaccagga ctcagaaaga  
 480

cacaagagaa aaagaagctg tacactgggg aggcttccgg ggtacctgtg cctgccatgt  
 540  
 ctctgaaggc  
 550

<210> 806  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 806  
 Met Ala Gly Ile Glu Arg Leu Met Ser Lys Phe Arg Leu His Lys Glu  
 1 5 10 15  
 Ser Leu Ser Ile His Ser Trp Leu Thr Phe Leu Ala Gln Gly Val Ser  
 20 25 30  
 Met Ala Leu Phe Pro Ser Ser Gly His Gln Phe Arg Ser Arg Gly Pro  
 35 40 45  
 Met Leu Gly Arg Ala Thr Pro Met Asp Leu Ala Arg Thr Leu Ser His  
 50 55 60  
 Arg Phe His Thr Gln Arg Glu Asp Ser Pro Thr Gln Thr Leu Lys Arg  
 65 70 75 80  
 Glu His Leu Gly Glu Gly Ser Val Glu Thr Arg Thr Gln Lys Asp Thr  
 85 90 95  
 Arg Glu Lys Glu Ala Val His Trp Gly Gly Phe Arg Gly Thr Cys Ala  
 100 105 110  
 Cys His Val Ser Glu Gly  
 115

<210> 807  
 <211> 287  
 <212> DNA  
 <213> Homo sapiens

<400> 807  
 acgcgtcgat ggcgggttgcc ctgcctcact ggcaagacgc gaaatttctt gccatgattt  
 60  
 cccgaggtgg gagagcgcgc ggcattggcga ccgtaaacgt atcgttgtcc gatgcgatga  
 120  
 ccgagtgggt cgaagctcag accgggacag gccgctatac cagcgcgagc gattatatct  
 180  
 gcgccctgat tcgccaggac caggagcgaa gcgacggcct caggcagctt caaacgttga  
 240  
 tcaccgaggg gttecgacagc ggcattcagcg cctcgtcgct tgatgac  
 287

<210> 808  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 808  
 Met Ala Val Ala Leu Pro His Trp Gln Asp Ala Lys Phe Leu Ala Met  
 1 5 10 15  
 Ile Ser Arg Gly Gly Arg Ala Arg Gly Met Ala Thr Val Asn Val Ser

20 25 30  
 Leu Ser Asp Ala Met Thr Glu Trp Val Glu Ala Gln Thr Gly Thr Gly  
 35 40 45  
 Arg Tyr Thr Ser Ala Ser Asp Tyr Ile Cys Ala Leu Ile Arg Gln Asp  
 50 55 60  
 Gln Glu Arg Ser Asp Gly Leu Arg Gln Leu Gln Thr Leu Ile Thr Glu  
 65 70 75 80  
 Gly Phe Asp Ser Gly Ile Ser Ala Ser Ser Leu Asp Asp  
 85 90

&lt;210&gt; 809

&lt;211&gt; 405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 809

nngggggggg gggggggggg ggtttttttt cccccaaaga aaaaaaagg gggggggggg  
 60  
 gggccccccc cccccccccc cctttttttt ccccgggggg tttattccca gggccaacag  
 120  
 gacgcgtggt cgcgtcaaat ggagagacga tcggtgccgc ccttgcccca cgatcctgat  
 180  
 ggccccgaga ttcttgacga tgtcaccacc ctgcccacac aggtaaatggg tctgccacgt  
 240  
 cacctgggta tccactcagc tggaaatggtg ctgacgcgag aaccagtagg acgcatctgc  
 300  
 cccattgagc cggctcgaat gtttggtcgc acggggctgc agtgggacaa anaaaactgt  
 360  
 gcctggatgg gggtggggaa gtttgatctg cttgggttgg ggatg  
 405

&lt;210&gt; 810

&lt;211&gt; 135

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 810

Xaa Gly Gly Gly Gly Gly Gly Val Phe Phe Pro Pro Lys Lys Lys Lys  
 1 5 10 15  
 Gly Gly Gly Gly Gly Pro Pro Pro Pro Pro Pro Pro Leu Phe Phe Pro Arg  
 20 25 30  
 Gly Val Tyr Ser Gln Gly Gln Gln Asp Ala Trp Ser Arg Gln Met Glu  
 35 40 45  
 Arg Arg Ser Val Pro Pro Leu Pro His Asp Pro Asp Gly Pro Glu Ile  
 50 55 60  
 Pro Asp Asp Val Thr Thr Leu Ala Gln Gln Val Met Gly Leu Pro Arg  
 65 70 75 80  
 His Leu Gly Ile His Ser Ala Gly Met Val Leu Thr Arg Glu Pro Val  
 85 90 95  
 Gly Arg Ile Cys Pro Ile Glu Pro Ala Arg Met Phe Gly Arg Thr Gly  
 100 105 110  
 Leu Gln Trp Asp Lys Xaa Asn Cys Ala Trp Met Gly Leu Gly Lys Phe  
 115 120 125  
 Asp Leu Leu Gly Leu Gly Met

130

135

<210> 811  
 <211> 642  
 <212> DNA  
 <213> Homo sapiens

<400> 811  
 acgcgtgaag gggcagtgat aggcgcgcac catttgagcc cccagtgatga tgaatgtaag  
 60  
 cagtgccaat gactgccaat ggcaaagaag agctccaacc aaacaccagg tgcttcattg  
 120  
 tggtagacaca ttaacaacac ccgggaagca gtactgccaa cacctagata tgagaaaaag  
 180  
 aaaacaggca cttaaagcga ggctaaccga ctttcaggaa tgataaaggg cagaggaccc  
 240  
 tgtcacctct acccctgcta cttaaaggcgt ggcccacaga gcagcagcac cagcagcaca  
 300  
 taaaatgggg ttaaatatga caggaaaaac aagggtgacag ggaaatgggg tgaagatcaa  
 360  
 gttcgtggta ngtctttctt tcctagaggc tttgggcctg agctcttgga gaaagctctc  
 420  
 caacacctca ggggtgtgcct gttccctgc cctgtgggga tgctctttgt acgggtggct  
 480  
 gactggctcc cactttctc cgtattgttg tcttgctctt tccctcaca ccatcaaggc  
 540  
 tctttccctt aattctataa gacagtacct ctggcttaga aattatatgc cctcctttaa  
 600  
 aaaaacgaaa tgctagagga catagaactt gaggaataat tt  
 642

<210> 812  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 812  
 Met Val Val Arg Glu Glu Thr Arg Gln Gln Tyr Gly Gly Lys Trp Glu  
 1 5 10 15  
 Pro Val Ser His Pro Tyr Lys Glu His Pro His Arg Ala Gly Glu Gln  
 20 25 30  
 Ala His Pro Glu Val Leu Glu Ser Phe Leu Gln Glu Leu Arg Pro Lys  
 35 40 45  
 Ala Ser Arg Lys Glu Arg Xaa Thr Thr Asn Leu Ile Phe Thr Pro Phe  
 50 55 60  
 Pro Cys His Leu Val Phe Pro Val Ile Phe Asn Pro Ile Leu Cys Ala  
 65 70 75 80  
 Ala Gly Ala Ala Ala Leu Trp Ala Thr Pro Leu Val Ala Gly Val Glu  
 85 90 95  
 Val Thr Gly Ser Ser Ala Leu Tyr His Ser  
 100 105

<210> 813  
 <211> 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 813

```

ccccggcgat agtcgctgg ggtcatggcg gatgaggggt taagagcgcg ttactgctgg
60
cgcccgactc cgatcagccg ttcggaaagg cgacgccgaa gatcatgaca ttctcggccg
120
gttcgctgac cagcaccggg ccgcccggct gggccgggaa accgtggaac aaggggaagcg
180
ggggcgggcg gcgggggtgac gccttcggcc cctcgcctt cggtcagcgt gcggcgcaat
240
tcgggggtcga g gatgatccg cggcccttcg atcttgacca cgatctccag ttgcccgcca
300
ttgtcttcgc cgccgacatc cagcgtgccc ccgcgcacca gcgcctcgt ggcgatcagg
360
gcgaggttca gcatcacctt cagcgcggac ttgggcagcg tctccgtttc caccaccag
420
ttgaattgct tgcgcttatt gtcggcaacc agccctcgt tcgcggtttt cgcttcgcgc
480
gcgtcgacct gttcgccgaa cccgccggcg gcgcagaagg cgaggcggaa gaatttgagc
540
ttgttgccgg ataccggt
558

```

&lt;210&gt; 814

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 814

```

Met Thr Phe Ser Ala Gly Ser Leu Thr Ser Thr Gly Pro Pro Gly Trp
1          5          10          15
Ala Gly Lys Pro Trp Asn Lys Gly Ser Gly Gly Ala Arg Gly Asp
20          25          30
Ala Phe Gly Pro Leu Ala Phe Gly Gln Arg Ala Ala Gln Phe Gly Val
35          40          45
Glu Asp Asp Pro Arg Pro Phe Asp Leu Asp His Asp Leu Gln Leu Pro
50          55          60
Ala Ile Val Phe Ala Ala Asp Ile Gln Arg Ala Ala Ala His Gln Arg
65          70          75          80
Leu Ala Gly Asp Gln Gly Glu Val Gln His His Leu Gln Arg Gly Leu
85          90          95
Gly Gln Arg Leu Arg Phe His Pro Pro Val Glu Leu Arg Ala Leu Ile
100          105          110
Val Gly Asn Gln Pro Leu Val Arg Gly Phe Arg Phe Ala Arg Val Asp
115          120          125
Leu Phe Ala Glu Pro Ala Gly Gly Ala Glu Gly Glu Ala Glu Glu Phe
130          135          140
Glu Leu Val Gly Gly Tyr Ala
145          150

```

&lt;210&gt; 815

&lt;211&gt; 315



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 815

acgcgttgag actgtcaciaa ggctaggcta acttcatata gctatgcat cagatctgcc  
 60  
 caaagtggac gatgagaaag ctcacgacgc gcctcacacg gatgggtcgg agcctggaca  
 120  
 agctagcgca ggagaaagcc gagacctcac gtccgaagcg gattcagcaa gtgcacaacc  
 180  
 ttctaccacac gctgaggttt ccagtgaagt tactgctacg tccagtatag atgagcaggt  
 240  
 agacctcatt gctgcaccgt taagcgaaga gtccaatgtc agcaagctcg ggccgtcccc  
 300  
 tgaggccgat acatc  
 315

&lt;210&gt; 816

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 816

Met	Pro	Ser	Asp	Leu	Pro	Lys	Val	Asp	Asp	Glu	Lys	Ala	His	Asp	Ala
1				5				10					15		
Pro	His	Thr	Asp	Gly	Ser	Glu	Pro	Gly	Gln	Ala	Ser	Ala	Gly	Glu	Ser
			20					25					30		
Arg	Asp	Leu	Thr	Ser	Glu	Ala	Asp	Ser	Ala	Ser	Ala	Gln	Pro	Ser	Thr
			35				40					45			
His	Ala	Glu	Val	Ser	Ser	Glu	Val	Thr	Ala	Thr	Ser	Ser	Ile	Asp	Glu
		50				55				60					
Gln	Val	Asp	Leu	Ile	Ala	Ala	Pro	Leu	Ser	Glu	Glu	Ser	Asn	Val	Ser
65					70					75				80	
Lys	Leu	Gly	Pro	Ser	Pro	Glu	Ala	Asp	Thr						
				85					90						

&lt;210&gt; 817

&lt;211&gt; 321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 817

gaattcaaag agaaaatatct gcctagacct tatgtgatta atctaattgga cgaactgacc  
 60  
 ctgaaaggaa tcacacaata ttatgctttt gttgaagagg ggcagaaggt tcattgcctg  
 120  
 aatacacttt tctcaaagct tcaaattaat caatccatta tattctgcaa ctctgttaat  
 180  
 agtgttgagc tgctggctaa aaaaataact gaactcgggt attcatgctt ctacattcat  
 240  
 gctaagatgt tgcaagacca cagaaatcga gtattccatg attgtcgtaa tgggtgcttgc  
 300  
 agaaaccttg tgtgcacaga t  
 321

<210> 818  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 818  
 Glu Phe Lys Glu Lys Tyr Leu Pro Arg Pro Tyr Val Ile Asn Leu Met  
 1 5 10 15  
 Asp Glu Leu Thr Leu Lys Gly Ile Thr Gln Tyr Tyr Ala Phe Val Glu  
 20 25 30  
 Glu Gly Gln Lys Val His Cys Leu Asn Thr Leu Phe Ser Lys Leu Gln  
 35 40 45  
 Ile Asn Gln Ser Ile Ile Phe Cys Asn Ser Val Asn Ser Val Glu Leu  
 50 55 60  
 Leu Ala Lys Lys Ile Thr Glu Leu Gly Tyr Ser Cys Phe Tyr Ile His  
 65 70 75 80  
 Ala Lys Met Leu Gln Asp His Arg Asn Arg Val Phe His Asp Cys Arg  
 85 90 95  
 Asn Gly Ala Cys Arg Asn Leu Val Cys Thr Asp  
 100 105

<210> 819  
 <211> 3422  
 <212> DNA  
 <213> Homo sapiens

<400> 819  
 atgaacagta agaaactgtc ttctactgac tgtttcaaaa ccgaggcctt cacatccccg  
 60  
 gaggccttgc agcctggggg gactgccctg gcgcctaaga agaggagccg gaaaggccgg  
 120  
 gcagggggcc atggactctc caaaggcccg ctggagaagc ggccctatct tggccccgct  
 180  
 ctgccccctga ctccccgaga cagggccagt ggcacacaag gggccagtga ggacaactct  
 240  
 ggtggaggag gcaagaagcc aaagatggag gagctgggcc tggcctccca cccccggag  
 300  
 ggcaggccct gccagcccca gacaagggca cagaaacagc caggccacac caactacagc  
 360  
 agctattcca agcggaagcg cctcactcgg ggccggggcca agaacaccac ctcttcaccc  
 420  
 tgtaaggggc gtgccaagcg acgacgacag cagcaggtgc tgcccctgga tcccgcagag  
 480  
 cctgaaatcc gcctcaagta catttcctct tgcaagcggc tgaggtcaga cagccggacc  
 540  
 cccgccttct cacccttcgt gcgggtggag aagcgagacg cgttcaccac catatgcact  
 600  
 gttgtcaact cccctggaga tgcgcccaag cccacagga agccttcctc ctctgcctcc  
 660  
 tcttcctcat cctcgtcctc gttctccttg gatgcagccg gggcctccct ggccacactc  
 720  
 cctggaggct ccatacctgca gccgcggccc tccttgccc tctcctccac gatgcacttg  
 780

gggcctgtgg ttccaaggc cctgagtacc tcttgccctg ttgctgcct ctgcaaaac  
840  
ccggccaact tcaaggacct tggggacctc tgtgggccct actaccctga acactgcctc  
900  
cccaaaaaga agccaaaact caaggagaag gtgcggccag aaggcacctg tgaggaggcc  
960  
tcgctgccgc ttgagagaac actcaaaggt cccgagtgtg cagctgccgc cactgccggg  
1020  
aagcccccca ggcttgacgg ccagctgac ccggccaagc agggcccact gcgcaccagt  
1080  
gcccggggcc tgtcccggag gctgcagagc tgctactgct gtgatggccg ggaggatggg  
1140  
ggcgaggagg cagccccagc cgacaagggc cgcaaacatg agtgcagcaa ggaggctccg  
1200  
gcagagcccc gcggggaggc ccaggagcac tgggtgcatg aggcctgtgc cgtgtggacc  
1260  
ggcggcgtct acctggtggc cgggaagctc tttgggctgc aggaggccat gaaggtggcc  
1320  
gtggacatga tgtgttccag ctgccaagaa gccggggcca ccatcgggtg ctgccacaaa  
1380  
ggatgcctcc acacctacca ctaccctgtg gccagcgatg caggttgcat attcatcgaa  
1440  
gagaactttt ctttgaaatg tcccaaacat aagaggctgc cgtagtaatc caccccaacg  
1500  
gccggaggag ccgccggagc ccgcctgcc gcccgccgccc gaaggagagg agccgcctgc  
1560  
gcagcccccg ggcttttgag ctgctcccag cgctggtcca gagccgatcc ttgatccggg  
1620  
tcccggatcg tggatccggc cgcctagggc tcagacttgc ggccccgggt tgggaggaaa  
1680  
accggttccg gagccgcctg ctcccgaac cggacggcac agggcggttct tgcccacccc  
1740  
aggggccagg cttgcggagg gggagcccgc ggagcggcca gactccccgg ggcgtcagc  
1800  
ctccggcgag ggtgggagac ggctttgtcc tggggacact ttccctctgg aatctcaaga  
1860  
cgacgtggca cacattccac gtgggtgctg ccgccacccc agtcggtcgt ggcgtgcagc  
1920  
tgggagccct gggcttgggg gtgggggtcg aaacagtact ggaagaggcg gagggcggct  
1980  
cctagctccg tggactaggc gggggagaaa ggaagccttt ctgagagcgg gctaggccgg  
2040  
cactggagag gccggagcct ttggaacaaa ccgtgcggaa cggtccagg ggccttcccg  
2100  
cccagccttt gccagatctc tcgtgcggtt cgggcaaagc cggggtagac ctgggctatg  
2160  
ctcagttagg ggttgcggga tccccgagtg tgggcgggac tgggacaccc tttggcctct  
2220  
gtttgtcccc tttccagtcc tccaccccac ccctggagcc cagcctggga gcgcaaaacc  
2280  
caagaagcgg ccagaacgca cctccggctc cggcggagcg gcgaccgttg tgcaccacca  
2340  
gggaccgccg cgcctactct gcacgggagc agggacagcg ctagatttcg tgtacaaaac  
2400

ctgtgtaccc ctctatatat atgttacata gaatgtatat atgttgggaa catgctcgct  
 2460  
 tctcccgtgt gtcgccgcgcg tgcgtcgtgc gcccgcaca gagccccaac cgggcctttg  
 2520  
 ccgggtaagg ggctaccgcg acgccacttg tccacgcagc caccaccggc ccggggccagt  
 2580  
 ccctgccagt cgtccgcct gtccgtccgt gtcctcagct ctgtccacgc ttcgataggc  
 2640  
 ctgacgcagc cccagccca gggccgcct agcaacttcc tgtacatatg actgtaaaat  
 2700  
 ggtaaacgtg tgtattatat ctggcctcgt tatatagtgt atatatatgt atacatatac  
 2760  
 atatataaa tatatatgaa gactgtaaat gttaagacga ctagtgttct tattagtata  
 2820  
 ttgcttcaca ctgaagattg tgtgtatcga gctgtttcta aaagatgttt attttcctta  
 2880  
 agagtaaaaa acagtcattg cattcagaaa aaaaaaaaaa aagtcaataa agatacaacg  
 2940  
 attgttttg aaaatctgca gcccggtggat tccgaccaga ttcagctggg agccgggcca  
 3000  
 ggcttttagt tggggaatgg gaatgaaggg aggggctggg ggggggggca tgaatggagt  
 3060  
 cagggagtcg gcctttcaca gaacaggaaa cctccccgc cctgtgccc cctctccagt  
 3120  
 gtggcggcag gtcgggaggg aggaggcttc tttgctgtga aatgaccagg ggccgggatg  
 3180  
 ggggaggtga gacgtgccag acttcttgca gggagacca agctgtagct cctgtcacac  
 3240  
 aacaggtcct ggaagtcagt ccatcctccc gtgccacca gggaccttgt gtccggaggg  
 3300  
 ggaggggaag cctttgccta ggtgctgggg gagggccaa gcactctcac tagtcagcac  
 3360  
 atccatcagc tgaagacaca aaaccagat tataaataat ttcattttta attctctgta  
 3420  
 ca  
 3422

&lt;210&gt; 820

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 820

Met	Asn	Ser	Lys	Lys	Leu	Ser	Ser	Thr	Asp	Cys	Phe	Lys	Thr	Glu	Ala
1				5					10					15	
Phe	Thr	Ser	Pro	Glu	Ala	Leu	Gln	Pro	Gly	Gly	Thr	Ala	Leu	Ala	Pro
			20					25					30		
Lys	Lys	Arg	Ser	Arg	Lys	Gly	Arg	Ala	Gly	Ala	His	Gly	Leu	Ser	Lys
		35				40					45				
Gly	Pro	Leu	Glu	Lys	Arg	Pro	Tyr	Leu	Gly	Pro	Ala	Leu	Pro	Leu	Thr
	50				55					60					
Pro	Arg	Asp	Arg	Ala	Ser	Gly	Thr	Gln	Gly	Ala	Ser	Glu	Asp	Asn	Ser
65					70				75					80	
Gly	Gly	Gly	Gly	Lys	Lys	Pro	Lys	Met	Glu	Glu	Leu	Gly	Leu	Ala	Ser

<211> 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 821

acgcgtcccc tcacctgcgg tatggaccaa gtgagttgtg tgctcgacaa tgggttcgcc  
60  
gccatcatgg atgtgccggg tttcaactat cgcgcccatc gttacaccga agcctatcgg  
120  
cgtttgccgc aaaatgtggg gctaggttcg gaaacgacct cgacggtgag cagccgtggg  
180  
gtctacaagt ttctgtttgt gctgaagtcc gatgccatct atccccacca tcagtcgtca  
240  
ggctacgaca cagagtattg ttcgtggtcg aacacccccg atgtcgattt cgccctcgcc  
300  
gaagactatc cctggacgat ggggcagttt gtctggacgg gcttcgacta cctcggtgaa  
360  
ccttcgcctt acgacaccga tgcctggccc tctcacgcct ccctcttcgg cattgtcgac  
420

&lt;210&gt; 822

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 822

Met	Asp	Gln	Val	Ser	Cys	Val	Leu	Asp	Asn	Gly	Phe	Ala	Ala	Ile	Met
1				5				10						15	
Asp	Val	Pro	Gly	Phe	Asn	Tyr	Arg	Ala	His	Arg	Tyr	Thr	Glu	Ala	Tyr
		20					25						30		
Arg	Arg	Leu	Pro	Gln	Asn	Val	Val	Leu	Gly	Ser	Glu	Thr	Thr	Ser	Thr
		35					40					45			
Val	Ser	Ser	Arg	Gly	Val	Tyr	Lys	Phe	Pro	Val	Val	Leu	Lys	Ser	Asp
		50				55					60				
Ala	Ile	Tyr	Pro	Asp	His	Gln	Ser	Ser	Gly	Tyr	Asp	Thr	Glu	Tyr	Cys
65					70					75				80	
Ser	Trp	Ser	Asn	Thr	Pro	Asp	Val	Asp	Phe	Ala	Leu	Ala	Glu	Asp	Tyr
			85					90					95		
Pro	Trp	Thr	Met	Gly	Gln	Phe	Val	Trp	Thr	Gly	Phe	Asp	Tyr	Leu	Gly
		100						105					110		
Glu	Pro	Ser	Pro	Tyr	Asp	Thr	Asp	Ala	Trp	Pro	Ser	His	Ala	Ser	Leu
		115					120						125		
Phe	Gly	Ile	Val	Asp											
		130													

&lt;210&gt; 823

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 823

tctagattct tgggcagccg agccctctt gaattcctca gcctaccatc atgatcaaca  
60  
cctcccatgt tccgtccatg aatgaccgca ctgacagcac tggagagatt taatgggtca  
120

ccaattgagg cagtgaaggc actcatggca ctcagagctg gaatggggct gatctgagtt  
 180  
 gtactgttga ctgcagtggg gatgacaacc tgcattcctt tgctggctgc atcgacaact  
 240  
 gctttgtaaa tggcatctac ggaagcatca cctggggccac ccacaacgag gccatccttc  
 300  
 acctgttgac caagagatgg gtcaatcctc ggttgcaact cacaagggtg atcttgaaaa  
 360  
 ggtggaagtg tagtgtttgg attctcagga agtgctgtga gcccaggctg agtgcttatt  
 420  
 cttttgttta ggagagctgc atcttcctgc attctcacct gaaagttctg aaacagacaa  
 480  
 gccatggggg tattgttagc tgggcaagga attgtggact gtccttgga cgcctggaga  
 540  
 ttctggtacc  
 550

&lt;210&gt; 824

&lt;211&gt; 161

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 824

Met	Ala	Cys	Leu	Phe	Gln	Asn	Phe	Gln	Val	Arg	Met	Gln	Glu	Asp	Ala
1				5				10					15		
Ala	Leu	Leu	Asn	Lys	Arg	Ile	Ser	Thr	Gln	Pro	Gly	Leu	Thr	Ala	Leu
		20						25				30			
Pro	Glu	Asn	Pro	Asn	Thr	Thr	Leu	Pro	Pro	Phe	Gln	Asp	Thr	Pro	Cys
		35					40					45			
Glu	Leu	Gln	Pro	Arg	Ile	Asp	Pro	Ser	Leu	Gly	Gln	Gln	Val	Lys	Asp
	50					55				60					
Gly	Leu	Val	Val	Gly	Gly	Pro	Gly	Asp	Ala	Ser	Val	Asp	Ala	Ile	Tyr
65					70				75					80	
Lys	Ala	Val	Val	Asp	Ala	Ala	Ser	Lys	Gly	Met	Gln	Val	Val	Ile	Thr
				85				90						95	
Thr	Ala	Val	Asn	Ser	Thr	Thr	Gln	Ile	Ser	Pro	Ile	Pro	Ala	Leu	Ser
			100					105					110		
Ala	Met	Ser	Ala	Phe	Thr	Ala	Ser	Ile	Gly	Asp	Pro	Leu	Asn	Leu	Ser
		115					120					125			
Ser	Ala	Val	Ser	Ala	Val	Ile	His	Gly	Arg	Asn	Met	Gly	Gly	Val	Asp
	130					135				140					
His	Asp	Gly	Arg	Leu	Arg	Asn	Ser	Arg	Gly	Ala	Arg	Leu	Pro	Lys	Asn
145				150					155					160	
Leu															

&lt;210&gt; 825

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 825

gcgtttgcga cccgccgtaa cccgcagaat gcggcggtgt gttgcactga gggatatttg  
 60

cagttgctgg atgagcgcgga gatgcgcggc gtgctcggcc acgagctgat gcacgtgtac  
 120  
 aaccgcgata tcctcacctc ttcgggtggcg gcgggtatcg cctccatcat cggtacgatt  
 180  
 gcgcagattc tttcgtttgg cgcgatgttc ggtggatcca accgcgatgg tgaacgttcc  
 240  
 aacccccctcg ccatgttcgt ggttgctatg ctggctccca ttgctactca ggtcatccag  
 300  
 atggctatta gccgcacccg tgaattc  
 327

<210> 826  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 826  
 Ala Phe Ala Thr Gly Arg Asn Pro Gln Asn Ala Ala Val Cys Cys Thr  
 1 5 10 15  
 Glu Gly Ile Leu Gln Leu Leu Asp Glu Arg Glu Met Arg Gly Val Leu  
 20 25 30  
 Gly His Glu Leu Met His Val Tyr Asn Arg Asp Ile Leu Thr Ser Ser  
 35 40 45  
 Val Ala Ala Gly Ile Ala Ser Ile Ile Gly Thr Ile Ala Gln Ile Leu  
 50 55 60  
 Ser Phe Gly Ala Met Phe Gly Gly Ser Asn Arg Asp Gly Glu Arg Ser  
 65 70 75 80  
 Asn Pro Leu Ala Met Phe Val Val Ala Met Leu Ala Pro Ile Ala Thr  
 85 90 95  
 Gln Val Ile Gln Met Ala Ile Ser Arg Thr Arg Glu Phe  
 100 105

<210> 827  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 827  
 nacgcgtacg tcaatatgca tcgtccagtc gttatcgcaa cgccgaaatc gatgctgcgc  
 60  
 aacaagatgg cgacctcgga tcccgaagag ttcaccaccg gtaggtggcg tcctgttcta  
 120  
 cccgacccat cgatcaccga cccgacggcc gttacgagga ttatcttgtg ctctggcaag  
 180  
 gcgcgggtggg agctggtcaa gcaacgtaag gccgccagtc ttgacggaca gctcgccatc  
 240  
 atcccgatgg agcgtctcta cccgctacca gtcgacgagt tggctgaggt ttttgcgcct  
 300  
 tacaccaacg tcacggatgt ccgctgggtc caagaagagc cagagaacca gggcgcctgg  
 360  
 tactacatgc tgaccacact gccccaggcc atgtcggaga agctgccagg attctttgat  
 420  
 gggttagtcg gcatcacccg cccaccgtcc tcagctccgt cggtgggaca gcacagcgtc  
 480



cacatccgtg aagagcagga gttactcgag aaggctatag cctgagcgac ctga  
534

<210> 828  
<211> 174  
<212> PRT  
<213> Homo sapiens

<400> 828  
Xaa Ala Tyr Val Asn Met His Arg Pro Val Val Ile Ala Thr Pro Lys  
1 5 10 15  
Ser Met Leu Arg Asn Lys Met Ala Thr Ser Asp Pro Glu Glu Phe Thr  
20 25 30  
Thr Gly Arg Trp Arg Pro Val Leu Pro Asp Pro Ser Ile Thr Asp Pro  
35 40 45  
Thr Ala Val Thr Arg Ile Ile Leu Cys Ser Gly Lys Ala Arg Trp Glu  
50 55 60  
Leu Val Lys Gln Arg Lys Ala Ala Ser Leu Asp Gly Gln Leu Ala Ile  
65 70 75 80  
Ile Pro Met Glu Arg Leu Tyr Pro Leu Pro Val Asp Glu Leu Ala Glu  
85 90 95  
Val Phe Ala Pro Tyr Thr Asn Val Thr Asp Val Arg Trp Val Gln Glu  
100 105 110  
Glu Pro Glu Asn Gln Gly Ala Trp Tyr Tyr Met Leu Thr His Leu Pro  
115 120 125  
Gln Ala Met Ser Glu Lys Leu Pro Gly Phe Phe Asp Gly Leu Val Gly  
130 135 140  
Ile Thr Arg Pro Pro Ser Ala Pro Ser Val Gly Gln His Ser Val  
145 150 155 160  
His Ile Arg Glu Glu Gln Glu Leu Leu Glu Lys Ala Ile Ala  
165 170

<210> 829  
<211> 492  
<212> DNA  
<213> Homo sapiens

<400> 829  
nagtggccgg gtggccggcg ggtgccagcc gccatggagg ccgtgccccg catgccccatg  
60  
atctggctgg acctgaagga ggccggtgac tttcacttcc agccagctgt gaagaagttt  
120  
gtcctgaaga attatggaga gaaccagaa gcctacaatg aagaactgaa gaagctggag  
180  
ttgctcagac agaatgctgt ccgtgtccca cgagactttg agggctgtag tgctctccgc  
240  
aagtacctcg gccagcttca ttacctgcag agtcgggtcc ccatgggctc gggccaggag  
300  
gccgtgtcc ctgtcacatg gacagagatc ttctcaggca agtctgtggc ccatgaggac  
360  
atcaagtacg agcaggcctg tattttctcc aacnttggag cgctgcactc catgctgggg  
420  
gccatggaca agcgggtgtc tgaggagggc atgaaggtct cctgtaccca ttccagtgc  
480

gcagccggcg cc  
492

<210> 830  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 830  
Xaa Trp Pro Gly Gly Arg Arg Val Pro Ala Ala Met Glu Ala Val Pro  
1 5 10 15  
Arg Met Pro Met Ile Trp Leu Asp Leu Lys Glu Ala Gly Asp Phe His  
20 25 30  
Phe Gln Pro Ala Val Lys Lys Phe Val Leu Lys Asn Tyr Gly Glu Asn  
35 40 45  
Pro Glu Ala Tyr Asn Glu Glu Leu Lys Lys Leu Glu Leu Leu Arg Gln  
50 55 60  
Asn Ala Val Arg Val Pro Arg Asp Phe Glu Gly Cys Ser Val Leu Arg  
65 70 75 80  
Lys Tyr Leu Gly Gln Leu His Tyr Leu Gln Ser Arg Val Pro Met Gly  
85 90 95  
Ser Gly Gln Glu Ala Ala Val Pro Val Thr Trp Thr Glu Ile Phe Ser  
100 105 110  
Gly Lys Ser Val Ala His Glu Asp Ile Lys Tyr Glu Gln Ala Cys Ile  
115 120 125  
Phe Ser Asn Xaa Gly Ala Leu His Ser Met Leu Gly Ala Met Asp Lys  
130 135 140  
Arg Val Ser Glu Glu Gly Met Lys Val Ser Cys Thr His Phe Gln Cys  
145 150 155 160  
Ala Ala Gly Ala

<210> 831  
<211> 303  
<212> DNA  
<213> Homo sapiens

<400> 831  
gcgttgctgc ggcgtggcga gaccatgacg gcggagaatc agcgtgcca tgtgcgcac  
60  
gccgcaaacc acatcaagga ggttgcggtc gatcacgagg tcgttgtagc ccattgta  
120  
ggccccagg taggtctgtt ggctctgcaa tcgacagcct acgaggaagt cggtatctat  
180  
ccgtggatg tcctgggcgc agagtcacag gccatgatcg gctacatgat cgagcaggaa  
240  
ctcggcaatg tgatgcctca ggatcagcag atcgtcacca tgatcacgat gacagtcgtc  
300  
gac  
303

<210> 832  
<211> 101  
<212> PRT

<213> Homo sapiens

<400> 832

Ala Leu Leu Arg Arg Gly Glu Thr Met Thr Ala Glu Asn Gln Arg Ala  
 1 5 10 15  
 Asn Val Arg Ile Ala Ala Asn His Ile Lys Glu Val Ala Val Asp His  
 20 25 30  
 Glu Val Val Val Ala His Gly Asn Gly Pro Gln Val Gly Leu Leu Ala  
 35 40 45  
 Leu Gln Ser Thr Ala Tyr Glu Glu Val Gly Ile Tyr Pro Leu Asp Val  
 50 55 60  
 Leu Gly Ala Glu Ser Gln Ala Met Ile Gly Tyr Met Ile Glu Gln Glu  
 65 70 75 80  
 Leu Gly Asn Val Met Pro Gln Asp Gln Gln Ile Val Thr Met Ile Thr  
 85 90 95  
 Met Thr Val Val Asp  
 100

<210> 833

<211> 466

<212> DNA

<213> Homo sapiens

<400> 833

nngatccgcg cgatcgacga ggcgggtgcg tgatgttgac agcgaaaatg cgcagccggc  
 60  
 catttgacga gggctgaaaa cgtcttctac cggctctgctg tgccgcctgg tgtcagcaaa  
 120  
 cgacgccatg atcgtccagt gggatcgcg ttgttctgcg gcgctggggg attcagttgc  
 180  
 ggattccacc aggccgggtg gcatgttgcg gcggcggttg agcacgacgt gtcggcgtct  
 240  
 ctgacctatg tcatgaatct cgctcgcccc ggcgtcaaga ttcacatcga ccccgagcac  
 300  
 ccggagctgg gcccaagacc accgcgaacc aagaagaaga gcggcggcgc agtgccgttc  
 360  
 gatgcgcgcatg tcggaactgg gtggatcgcc agcgagcccg ccgacgatcc cggctgcgaa  
 420  
 cacttctacg tgtacgacgt caagaacctc agcggcgagc ggatcc  
 466

<210> 834

<211> 142

<212> PRT

<213> Homo sapiens

<400> 834

Gln Arg Lys Cys Ala Ala Gly His Leu Thr Arg Ala Glu Asn Val Phe  
 1 5 10 15  
 Tyr Arg Ser Ala Val Pro Pro Gly Val Ser Lys Arg Arg His Asp Arg  
 20 25 30  
 Pro Val Gly Ile Asp Leu Phe Cys Gly Ala Gly Gly Phe Ser Cys Gly  
 35 40 45  
 Phe His Gln Ala Gly Trp His Val Ala Ala Ala Val Glu His Asp Val

50                      55                      60  
 Ser Ala Ser Leu Thr Tyr Val Met Asn Leu Ala Arg Pro Gly Val Lys  
 65                      70                      75                      80  
 Ile His Ile Asp Pro Glu His Pro Glu Leu Gly Pro Arg Pro Pro Arg  
                     85                      90                      95  
 Thr Lys Lys Lys Ser Gly Gly Ala Val Pro Phe Asp Ala His Val Gly  
                     100                      105                      110  
 Thr Gly Trp Ile Ala Ser Glu Pro Ala Asp Asp Pro Gly Cys Glu His  
                     115                      120                      125  
 Phe Tyr Val Tyr Asp Val Lys Asn Leu Ser Gly Glu Arg Ile  
                     130                      135                      140

<210> 835  
 <211> 482  
 <212> DNA  
 <213> Homo sapiens

<400> 835  
 acgcgtgaag ggattttgat caccagaac aaccacctgt ctttttagat caagaagcag  
 60  
 aagctcagag caaagaacat cacaccacgt ccctcagtga ttgaagcagt gattgagtca  
 120  
 cagaataaat ctggaactca ggtcttctga tctttgctcc agatggttaga gacaaaacta  
 180  
 aaagtaaaat accaagtga atcaaagcat cacgattgag cccagaacat gaaaaagaac  
 240  
 ttcttgccc acttgagaaa ctgttaaacc ggacatacct ttggggactt cttcccttct  
 300  
 ctggaataag attgatgttt ccatgctgtg aaagacgatg atgttccttc tcccagattc  
 360  
 ctgctgtctt caaaaggcct agcaaaaacc actgctgctg ggtgcagttg agaaagggaa  
 420  
 tgaagaacaa tcccatggcc atgcaggcac tcctccctc cactctctg cccttcacgc  
 480  
 gt  
 482

<210> 836  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 836  
 Met Ala Met Gly Leu Phe Phe Ile Pro Phe Leu Asn Cys Thr Gln Gln  
 1                      5                      10                      15  
 Gln Trp Phe Leu Leu Gly Leu Leu Lys Thr Ala Gly Ile Trp Glu Lys  
                     20                      25                      30  
 Glu His His Arg Leu Ser Gln His Gly Asn Ile Asn Leu Ile Pro Glu  
                     35                      40                      45  
 Lys Gly Arg Ser Pro Gln Arg Tyr Val Arg Phe Asn Ser Phe Ser Ser  
                     50                      55                      60  
 Gly Pro Gly Ser Ser Phe Ser Cys Ser Gly Leu Asn Arg Asp Ala Leu  
 65                      70                      75                      80  
 Ile Ser Leu Gly Ile Leu Leu Leu Val Leu Ser Leu Thr Ser Gly Ala

85 90 95  
 Lys Ile Arg Arg Pro Glu Phe Gln Ile Tyr Ser Val Thr Gln Ser Leu  
 100 105 110  
 Leu Gln Ser Leu Arg Asp Val Val  
 115 120

<210> 837  
 <211> 509  
 <212> DNA  
 <213> Homo sapiens

<400> 837  
 acgcgtggac ccccgcttctg cccgcctttg cagtcacgc cctccctgaa gtcaccgctg  
 60  
 cagaaatacg caggcactga cctgggggta cagccaggca agggagagac gaggggctca  
 120  
 ctctgcacca gccaaaggcct gtgtcctggc atggctcccc caggaagcga ggatggcggt  
 180  
 gcctggcggt cgagcccctc ttatcctggg gaatgctggg gggcggttct gagcagacct  
 240  
 gcctgctgcc cctgctggct ggcaactgcc ctccccggg gaaagggttg gtggtcccc  
 300  
 caggggaact caaagcagg gagcccctgg agggcccaag tccttggaat atcttggcgc  
 360  
 tcagatggcc cccctcgaac accctcacac gggggggccg cgcggtggga ggtgaccag  
 420  
 cagccactct tacttggcga agacttttct cccaatgca gcgcgggttg tatcagcctg  
 480  
 agccttcagg ttggtgaggc tggggtacc  
 509

<210> 838  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 838  
 Met Ala Pro Pro Gly Ser Glu Asp Gly Gly Ala Trp Arg Ser Ser Pro  
 1 5 10 15  
 Ser Tyr Pro Gly Glu Cys Trp Gly Ala Phe Leu Ser Arg Pro Ala Cys  
 20 25 30  
 Cys Pro Cys Trp Leu Ala Leu Pro Leu Pro Arg Gly Lys Val Gly Trp  
 35 40 45  
 Ser Pro Gln Gly Asn Ser Lys Gln Gly Ser Pro Trp Arg Pro Gln Val  
 50 55 60  
 Pro Gly Ile Ser Trp Arg Ser Asp Gly Pro Pro Arg Thr Pro Ser His  
 65 70 75 80  
 Gly Gly Ala Ala Arg Trp Glu Val Thr Gln Gln Pro Leu Leu Leu Gly  
 85 90 95  
 Glu Asp Phe Ser Pro Asn Ala Ser Ala Gly Gly Ile Ser Leu Ser Leu  
 100 105 110  
 Gln Val Gly Glu Ala Gly Val  
 115

<210> 839  
 <211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 839  
 acgcgtctcg tgttcgtgcg gcacggcagg acggcggttca atgtggaggg tcggctccag  
 60  
 ggccgtctcg acatgccggtt ggatgaggtg gggcgccgctc aggcactcac agtgggtcaa  
 120  
 gtcacgcgag agatggaacc tgacgcgacg atggcctctc cgctacaacg tgcgcgcgac  
 180  
 acagctcagg caatcggtgc ttgtgctgga ttgggcgtac agctggatga tcgactcacc  
 240  
 gagatcgatg tcggacgttg gtcggggacaa cgggctgcgg acctgcgtcg caacgatcct  
 300  
 gactacgcag caagtgtggt cagccctatc gattaccggg tcggagn  
 347

<210> 840  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 840  
 Thr Arg Leu Val Phe Val Arg His Gly Arg Thr Ala Phe Asn Val Glu  
 1 5 10 15  
 Gly Arg Leu Gln Gly Arg Leu Asp Met Pro Leu Asp Glu Val Gly Arg  
 20 25 30  
 Arg Gln Ala Leu Thr Val Ala Gln Val Ile Ala Glu Met Glu Pro Asp  
 35 40 45  
 Ala Ile Met Ala Ser Pro Leu Gln Arg Ala Arg Asp Thr Ala Gln Ala  
 50 55 60  
 Ile Gly Ala Cys Ala Gly Leu Gly Val Gln Leu Asp Asp Arg Leu Ile  
 65 70 75 80  
 Glu Ile Asp Val Gly Arg Trp Ser Gly Gln Arg Ala Ala Asp Leu Arg  
 85 90 95  
 Arg Asn Asp Pro Glu Tyr Ala Ala Ser Val Val Ser Pro Ile Asp Tyr  
 100 105 110  
 Arg Val Gly  
 115

<210> 841  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 841  
 tccggaactc accccgacgc cgtcattatg gacgtcatga tgccgcgtct agatggcttg  
 60  
 gaagccaccc ggatgctgcg cagcaatggc aacgacgtcc cgatcctcgt cctcaccgcc  
 120  
 cgcgatgctg tcgacgatcg cgttgacggc ctcgacgctg gcgccgatga ctacatggtc  
 180

aagcccttcg ccctcgacga actcctcgct cgcctacgcg ccctcactcg tcgttcccgt  
 240  
 cccgagccag agcaaaacga ggcccttgaa caactctcct tcgctgacct cacccttgat  
 300  
 ccaggcaccg gcgagatcac ccgcgggaac cgtcgcatca gtttgacgcg t  
 351

<210> 842

<211> 117

<212> PRT

<213> Homo sapiens

<400> 842

Ser	Gly	Thr	His	Pro	Asp	Ala	Val	Ile	Met	Asp	Val	Met	Met	Pro	Arg
1				5					10					15	
Leu	Asp	Gly	Leu	Glu	Ala	Thr	Arg	Met	Leu	Arg	Ser	Asn	Gly	Asn	Asp
			20					25					30		
Val	Pro	Ile	Leu	Val	Leu	Thr	Ala	Arg	Asp	Ala	Val	Asp	Asp	Arg	Val
		35					40					45			
Asp	Gly	Leu	Asp	Ala	Gly	Ala	Asp	Asp	Tyr	Met	Val	Lys	Pro	Phe	Ala
	50					55					60				
Leu	Asp	Glu	Leu	Leu	Ala	Arg	Leu	Arg	Ala	Leu	Thr	Arg	Arg	Ser	Arg
65					70					75				80	
Pro	Glu	Pro	Glu	Gln	Asn	Glu	Ala	Pro	Glu	Gln	Leu	Ser	Phe	Ala	Asp
				85					90					95	
Leu	Thr	Leu	Asp	Pro	Gly	Thr	Arg	Glu	Ile	Thr	Arg	Gly	Asn	Arg	Arg
			100					105					110		
Ile	Ser	Leu	Thr	Arg											
			115												

<210> 843

<211> 393

<212> DNA

<213> Homo sapiens

<400> 843

ctagcccagg ctctcgcca cgaggggctg cgcgctgtgg cctctggggc aaacccgggc  
 60  
 ggcctcaagc gcggtatcga gaaggctgtc gacgccgttg tggaggagct ccgctctatc  
 120  
 tcgcgcgcca tcgacaccac ctcgacatg gccagcggtg ccaccatctc cagccgtgac  
 180  
 gagaccatcg ggcacctcat cgctgaggcc ttcgacaagg ttggttaagga cgggggttatc  
 240  
 accgtcgacg agtcgcagac cttcggcact gagcttgact tcaccgaggg catgcagttc  
 300  
 gacaaggggtt acctgtcgcc ctacatggtc accgaccagg ttcgcatgga ggctgtgac  
 360  
 gaggatcctt acatcctcat tcaactccgc aag  
 393

<210> 844

<211> 131

<212> PRT

<213> Homo sapiens

<400> 844

```

Leu Ala Gln Ala Leu Val His Glu Gly Leu Arg Ala Val Ala Ser Gly
 1           5           10           15
Ala Asn Pro Val Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Asp Ala
          20           25           30
Val Val Glu Glu Leu Arg Ser Ile Ser Arg Ala Ile Asp Thr Thr Ser
          35           40           45
Asp Met Ala Ser Val Ala Thr Ile Ser Ser Arg Asp Glu Thr Ile Gly
          50           55           60
Ala Leu Ile Ala Glu Ala Phe Asp Lys Val Gly Lys Asp Gly Val Ile
65           70           75           80
Thr Val Asp Glu Ser Gln Thr Phe Gly Thr Glu Leu Asp Phe Thr Glu
          85           90           95
Gly Met Gln Phe Asp Lys Gly Tyr Leu Ser Pro Tyr Met Val Thr Asp
          100          105          110
Gln Val Arg Met Glu Ala Val Ile Glu Asp Pro Tyr Ile Leu Ile His
          115          120          125
Ser Arg Lys
          130

```

<210> 845

<211> 505

<212> DNA

<213> Homo sapiens

<400> 845

```

gccacctgcc caaggctgga tgacgggcct agggcacatc taaggaacaa ggacaggaca
60
gaagcaaagc cacagctgct ggggcagggt gggggccggt atgtctggcc agcagcatca
120
cccttgcccc cggcggggct ccaggaccgg gagactcatc agccggaagc tcttgaggga
180
ggcggctgcc gtgaagacag gcacccttgc tcctgagagg ggcaccaga gaaccaagac
240
tcagcagagg gaacacaggg ctacgccag gcccaggcc tgatatccag agtctaaatc
300
ccacctcagc ccagggggga gccttgagag gagctatgtc cctcatggac cccagtttcc
360
tctgcatacg ggctccgagc cctgcactgc ctccagggtg gttcccaagg tcttttccca
420
ttacctccta cgtgagcact cagtaaacca atacacatac acaagggtga cattaattcc
480
agccacagaa tcccaggcca cgcgt
505

```

<210> 846

<211> 130

<212> PRT

<213> Homo sapiens

<400> 846

```

Met Gly Lys Asp Leu Gly Asn Tyr Pro Gly Gly Ser Ala Gly Leu Gly

```



```

      1           5           10           15
Ala Arg Met Gln Arg Lys Leu Gly Ser Met Arg Asp Ile Ala Pro Leu
      20           25           30
Lys Ala Pro Trp Trp Ala Glu Val Gly Phe Arg Leu Trp Ile Ser Gly
      35           40           45
Leu Gly Pro Gly Arg Ser Pro Val Phe Pro Leu Leu Ser Leu Gly Ser
      50           55           60
Leu Gly Ala Pro Leu Arg Ser Lys Gly Ala Cys Leu His Gly Ser Arg
      65           70           75           80
Leu Leu Gln Glu Leu Pro Ala Asp Glu Ser Pro Gly Pro Gly Ala Pro
      85           90           95
Pro Gly Ala Gly Val Met Leu Leu Ala Arg His Thr Gly Pro His Pro
      100          105          110
Ala Pro Ala Ala Val Ala Leu Leu Leu Ser Cys Pro Cys Ser Leu Asp
      115          120          125
Val Pro
      130

```

&lt;210&gt; 847

&lt;211&gt; 448

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 847

```

aagctttttaa aggagcaaga aaacatgaaa gagctagtag tcaaccttct ccgcatgact
60
caaatcaaaa ttgatgaaaa ggaacaaaag tccaaggatt tcttgaaagc tcagcaaaaa
120
tacaccaaca ttgttaaaga aatgaaagca aaggatcttg aaatcaggat acacaagaag
180
aaaaaatgtg aaatttatcg gagactgaga gagcttgcta aactgtatga caccattcga
240
aatgaaagaa acaaatattgt taacttactc cacaaagctc atcagaaagt aaatgaaata
300
aaagaaaggc ataaaatgtc attaaatgaa cttgaaattc tgagaaatag tgccgttagt
360
caagaaagaa agctacaaaa ttccatgctg aaacacgcca acaatgttac catcagagag
420
agcatgcaaa acgatgtgcg caaaattt
448

```

&lt;210&gt; 848

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 848

```

Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu
      1           5           10           15
Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys
      20           25           30
Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met
      35           40           45
Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys Lys Lys Cys Glu

```

```

      50              55              60
Ile Tyr Arg Arg Leu Arg Glu Leu Ala Lys Leu Tyr Asp Thr Ile Arg
65              70              75              80
Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys
      85              90              95
Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu
      100             105             110
Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser
      115             120             125
Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn
      130             135             140
Asp Val Arg Lys Ile
145

```

&lt;210&gt; 849

&lt;211&gt; 463

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 849

```

nnacgcgtga ttgttggggc caaggaatgc catgtggaga gtgcaggtga agtgataagt
60
cttttggaga tggggaatgc agccagacat acaggtacca ctcaaataaa tgagcactcc
120
agcagatcac atgcaatttt tacaatcagc atttgtcaag ttcataaaaa tatggaggca
180
gctgaagatg gatcatggta ttcccctcgg catattgtct caaagttcca ctttgtggat
240
ttggcaggat cagaaagagt aacaaaaacg gggaatactg gtgaacggtt caaagaatcc
300
attcaaatca atagtggatt gctggcttta ggaaatgtaa taagcgctct tggggaccca
360
cgcaggaaga gttcacatat tccatatagg gatgctaaaa ttaccgggct tctgaaagat
420
tctctgggag gcagtgctaa gactgtcatg atcacatgtg tca
463

```

&lt;210&gt; 850

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 850

```

Xaa Arg Val Ile Val Gly Ala Lys Glu Cys His Val Glu Ser Ala Gly
1              5              10              15
Glu Val Ile Ser Leu Leu Glu Met Gly Asn Ala Ala Arg His Thr Gly
      20              25              30
Thr Thr Gln Met Asn Glu His Ser Ser Arg Ser His Ala Ile Phe Thr
      35              40              45
Ile Ser Ile Cys Gln Val His Lys Asn Met Glu Ala Ala Glu Asp Gly
      50              55              60
Ser Trp Tyr Ser Pro Arg His Ile Val Ser Lys Phe His Phe Val Asp
65              70              75              80
Leu Ala Gly Ser Glu Arg Val Thr Lys Thr Gly Asn Thr Gly Glu Arg

```



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 853

acgcgttcag aaacttatgg tgaaatggcc gaactagaaa acctagtcga cgaatattac  
60  
caagctatgg gcatggatgt gcgtcgagaa acctggctgc gcgagcagat actcaagaaa  
120  
gtccaagaaa cgcatttgtt agaagagctt gcaggcatag aatcaggtga tgatggcgca  
180  
gtgggtggaag agagcgtatt agaaggcctc gatacctatt tatgtgagat aaaagaagca  
240  
cagattcgtc atggattgca tcgtcttggga gaattaccag aagacgataa attggccgat  
300  
accttggtcg ccttattgcg ttaccctcgt ggcagtgaca ttaccagcaa ggaattttg  
360  
catgccttaa tggcagattt agagttagaa caagacgatt ttgaccaat gcaaagcacg  
420  
cgt  
423

&lt;210&gt; 854

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 854

Thr	Arg	Ser	Glu	Thr	Tyr	Gly	Glu	Met	Ala	Glu	Leu	Glu	Asn	Leu	Val
1				5					10					15	
Asp	Glu	Tyr	Tyr	Gln	Ala	Met	Gly	Met	Asp	Val	Arg	Arg	Glu	Thr	Trp
		20					25					30			
Leu	Arg	Glu	Gln	Ile	Leu	Lys	Lys	Val	Gln	Glu	Thr	His	Leu	Leu	Glu
		35				40					45				
Glu	Leu	Ala	Gly	Ile	Glu	Ser	Gly	Asp	Asp	Gly	Ala	Val	Val	Glu	Glu
		50				55				60					
Ser	Val	Leu	Glu	Gly	Leu	Asp	Thr	Tyr	Leu	Cys	Glu	Ile	Lys	Glu	Ala
65				70					75					80	
Gln	Ile	Arg	His	Gly	Leu	His	Arg	Leu	Gly	Glu	Leu	Pro	Glu	Asp	Asp
			85				90						95		
Lys	Leu	Ala	Asp	Thr	Leu	Val	Ala	Leu	Leu	Arg	Leu	Pro	Arg	Gly	Ser
		100					105					110			
Asp	Ile	Thr	Ser	Lys	Gly	Ile	Leu	His	Ala	Leu	Met	Ala	Asp	Leu	Glu
		115				120						125			
Leu	Glu	Gln	Asp	Asp	Phe	Asp	Pro	Met	Gln	Ser	Thr	Arg			
		130				135						140			

&lt;210&gt; 855

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 855

acgcgtgaag ggggagctca aagtagatgg acctctgact agatggagct ctgagtaaga  
60

tgaatgtctg tgcggatggt gctcacagca agatagtgtc tggagcgatt ggcacttcga  
 120  
 acaagatgga gcatggagca gatggagctc tgagcaagat ggagcgtgga gtagatagag  
 180  
 cttggagcaa gaaggagctc caagcaagat ggagcttgca gcaggtgctt ctcagtgtaa  
 240  
 gatggagctc agagaagatg atgctcagag taagattgag ctcggtgatt ggcactccaa  
 300  
 acattgctct gagcccattg gagnctctga gcagaaag  
 338

<210> 856

<211> 93

<212> PRT

<213> Homo sapiens

<400> 856

Met	Asn	Val	Cys	Ala	Asp	Val	Ala	His	Ser	Lys	Ile	Val	Leu	Gly	Ala
1				5					10					15	
Ile	Gly	Thr	Ser	Asn	Lys	Met	Glu	His	Gly	Ala	Asp	Gly	Ala	Leu	Ser
			20					25					30		
Lys	Met	Glu	Arg	Gly	Val	Asp	Arg	Ala	Trp	Ser	Lys	Lys	Glu	Leu	Gln
		35				40					45				
Ala	Arg	Trp	Ser	Leu	Gln	Gln	Val	Leu	Leu	Ser	Val	Arg	Trp	Ser	Ser
	50				55					60					
Glu	Lys	Met	Met	Leu	Arg	Val	Arg	Leu	Ser	Ser	Val	Ile	Gly	Thr	Pro
65				70					75					80	
Asn	Ile	Ala	Leu	Ser	Pro	Leu	Glu	Xaa	Leu	Ser	Arg	Lys			
			85						90						

<210> 857

<211> 435

<212> DNA

<213> Homo sapiens

<400> 857

ccggacagtg ggccaccagt gtttgcccc agcaatcatg tcagtgaagc ccaacctcgg  
 60  
 gagacacccc ggcccctcat gcctcctacc aagcctttcc tagcacctga gaccaccagc  
 120  
 cctggtgaca ggggtggagac ccctgtgggg gagagagccc caaccctgt ctcagcaagc  
 180  
 tctgaggtct cccctgagag ccaagaggac tcagagaccc cagcagagga ggacagtggc  
 240  
 tctgagcagc ctcccaacag cgctcctgcct gacaaactga aggtgagctg ggagaacccc  
 300  
 agccccagg agggccctgc tgcagagagt gcagaaccgt cccaggcacc ctgttctgag  
 360  
 acttctgagg ctgccccag ggaggggtggg aagcccccta caccaccacc caagatctta  
 420  
 tcagagaaac tgaaa  
 435

<210> 858

<211> 145  
 <212> PRT  
 <213> Homo sapiens

<400> 858  
 Pro Asp Ser Gly Pro Pro Val Phe Ala Pro Ser Asn His Val Ser Glu  
 1 5 10 15  
 Ala Gln Pro Arg Glu Thr Pro Arg Pro Leu Met Pro Pro Thr Lys Pro  
 20 25 30  
 Phe Leu Ala Pro Glu Thr Thr Ser Pro Gly Asp Arg Val Glu Thr Pro  
 35 40 45  
 Val Gly Glu Arg Ala Pro Thr Pro Val Ser Ala Ser Ser Glu Val Ser  
 50 55 60  
 Pro Glu Ser Gln Glu Asp Ser Glu Thr Pro Ala Glu Glu Asp Ser Gly  
 65 70 75 80  
 Ser Glu Gln Pro Pro Asn Ser Val Leu Pro Asp Lys Leu Lys Val Ser  
 85 90 95  
 Trp Glu Asn Pro Ser Pro Gln Glu Ala Pro Ala Ala Glu Ser Ala Glu  
 100 105 110  
 Pro Ser Gln Ala Pro Cys Ser Glu Thr Ser Glu Ala Ala Pro Arg Glu  
 115 120 125  
 Gly Gly Lys Pro Pro Thr Pro Pro Pro Lys Ile Leu Ser Glu Lys Leu  
 130 135 140  
 Lys  
 145

<210> 859  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

<400> 859  
 nacgcgtggt gtggtaatcc ggtttctggt ggcgacggct gccacccctc gtggcaagac  
 60  
 atgccgttgc gtgccgatat gccatacgaa gcttggccta gtgcgaaaag ctcgctggaa  
 120  
 ccctcgaaga ggcagggtcg gcaggttacc gtggtcgggtg tacgcategt ttcgacgatg  
 180  
 aaccccatte tgggagcaga tatgacgacg taccagtacc tcattgtcgg tggcgggatg  
 240  
 gccgctgatt ctgccgcccg cggatatcgc gacatcgaca agaaagggtc gatcgccatc  
 300  
 ctcagcgtcg acgtcgacgc cccgtatcct cggccagcgc tgagcaagaa gctgtggact  
 360  
 gaccctgagt tcacctggga ccaggctcgac cttgctactg tcgctgacac cggcgcgga  
 420  
 ttgcgggtcg gcaactgagggt gctcagcatt gaccgtgacg gcaagaccgt cctgaccgct  
 480  
 tccggccagg tattcggcta ccagaagttg ctgctcgta cgggccttac cccgtcgcgc  
 540  
 attgacgacg acggcgatgc c  
 561

<210> 860

<211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 860  
 Xaa Ala Trp Cys Gly Asn Pro Val Ser Gly Gly Asp Gly Cys His Pro  
 1 5 10 15  
 Ser Trp Gln Asp Met Pro Leu Arg Ala Asp Met Pro Tyr Glu Ala Trp  
 20 25 30  
 Pro Ser Ala Lys Ser Ser Leu Glu Pro Ser Lys Arg Gln Gly Arg Gln  
 35 40 45  
 Val Thr Val Val Gly Val Arg Ile Val Ser Thr Met Asn Pro Ile Leu  
 50 55 60  
 Gly Ala Asp Met Thr Thr Tyr Gln Tyr Leu Ile Val Gly Gly Gly Met  
 65 70 75 80  
 Ala Ala Asp Ser Ala Ala Arg Gly Ile Arg Asp Ile Asp Lys Lys Gly  
 85 90 95  
 Ser Ile Ala Ile Leu Ser Ala Asp Val Asp Ala Pro Tyr Pro Arg Pro  
 100 105 110  
 Ala Leu Ser Lys Lys Leu Trp Thr Asp Pro Glu Phe Thr Trp Asp Gln  
 115 120 125  
 Val Asp Leu Ala Thr Val Ala Asp Thr Gly Ala Glu Leu Arg Leu Gly  
 130 135 140  
 Thr Glu Val Leu Ser Ile Asp Arg Asp Gly Lys Thr Val Leu Thr Ala  
 145 150 155 160  
 Ser Gly Gln Val Phe Gly Tyr Gln Lys Leu Leu Leu Val Thr Gly Leu  
 165 170 175  
 Thr Pro Ser Arg Ile Asp Asp Asp Gly Asp Ala  
 180 185

<210> 861  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 861  
 ccatggggttt ctatgctctg aggtttcatc tgtggggaac agtattgact tacttacaaa  
 60  
 gagataatgg tcatacccta tggtcactca ccatagtctg gcggtacatg gacttctcag  
 120  
 cccagtaag atctgtatcc acaggacact taaagtcacc ttacagaggg ctatcccagt  
 180  
 gcctgaggcc tattagaggc gtctcttttc agccatcagt gttagaggcc atctgcatgg  
 240  
 gatcccagag cctgcctcgg gaatggcaga agctggctgg tgcttggcgt gggctttgcc  
 300  
 tgtttctactg ctttcaggga ggcctgccac aggggagaaa ctgggggggg ga  
 352

<210> 862  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 862

Met Gly Phe Tyr Ala Leu Arg Phe His Leu Trp Gly Thr Val Leu Thr  
 1 5 10 15  
 Tyr Leu Gln Arg Asp Asn Gly His Thr Leu Trp Ser Leu Thr Ile Val  
 20 25 30  
 Trp Arg Tyr Met Asp Phe Ser Ala Pro Val Arg Ser Val Ser Thr Gly  
 35 40 45  
 His Leu Lys Ser Pro Tyr Arg Gly Leu Ser Gln Cys Leu Arg Pro Ile  
 50 55 60  
 Arg Gly Val Ser Phe Gln Pro Ser Val Leu Glu Ala Ile Cys Met Gly  
 65 70 75 80  
 Ser Gln Ser Leu Pro Arg Glu Trp Gln Lys Leu Ala Gly Ala Trp Arg  
 85 90 95  
 Gly Leu Cys Leu Phe His Cys Phe Gln Gly Gly Leu Pro Gln Gly Arg  
 100 105 110  
 Asn Trp Gly Gly  
 115

&lt;210&gt; 863

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 863

tccggatcga cccggacgaa ttccacggtc cagccattga cttccaaatg ctctttgaca  
 60  
 tacgccgtga catgttcaat gtccaactta cgcattgtcca cccgctcacc ggtctcattg  
 120  
 agtttgagct gcgagtagac gttgcggttag ttctcgttga ccgactgctc atacgagatg  
 180  
 tgcagaagca tcggtttgcg gccatcctcg gacggcattg gcttggttgta catggccgct  
 240  
 tggcggaaca tgttcagggg aaagcccgcac ttgaagttgt gcgacagggc agaaacacac  
 300  
 agcattttctg accggcgatg acccatn  
 327

&lt;210&gt; 864

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 864

Met Gly His Arg Arg Ser Glu Met Leu Cys Val Ser Ala Leu Ser His  
 1 5 10 15  
 Asn Phe Lys Ser Gly Phe Thr Leu Asn Met Phe Arg Gln Ala Ala Met  
 20 25 30  
 Tyr Asn Lys Pro Met Pro Ser Glu Asp Gly Arg Lys Pro Met Leu Leu  
 35 40 45  
 His Ile Ser Tyr Glu Gln Ser Val Asn Glu Asn Tyr Arg Asn Val Tyr  
 50 55 60  
 Ser Gln Leu Lys Leu Asn Glu Thr Gly Glu Arg Val Asp Met Arg Lys  
 65 70 75 80  
 Leu Asp Ile Glu His Val Thr Ala Tyr Val Lys Glu His Leu Glu Val



85 90 95  
 Asn Gly Trp Thr Val Glu Phe Val Arg Val Asp Pro  
 100 105

<210> 865  
 <211> 729  
 <212> DNA  
 <213> Homo sapiens

<400> 865  
 acgcgtcatc ctcattcaag aggcccagga ggagcaccac cctccgcata ttgcgcgtgc  
 60  
 agctctcgtt ctggtctctg agcatgccca cggcgctctg cacacagctt ctcagcagcc  
 120  
 tgggtggtgtc caggatcgac acatcactgc ctccgagttc agagggtttcc tttccacct  
 180  
 ttctcagaact ttctgtttcc atggcctcct ctgccacctc tgccacctcc cctgatgtgc  
 240  
 tggectccgt ctccatcgcc tctcatggc cgtcttccgc ccggtgttcc aagcccagct  
 300  
 caggcaagtc tccgggcgag aacagctggc tgatggtgac atgctgcagc ctggtcacat  
 360  
 cagaaaccat gaggggtgat ctccggaggt catcgatgtg gacagactgc cacagccctc  
 420  
 cgtggaagcc cacataggct gttcctcttc ccaccggga cagttttgtg atgaaataga  
 480  
 cgaagatacg gtcctcattt tctcgtattt tgttgatttc atttataaca gaatacttag  
 540  
 ctgaggcaat gagctgggag ctacggattc catcttcaaa atctgtctga aaaatgagga  
 600  
 ttttacattt ggctgtattc gttaaacagt ttcggacttc tttgaggaat gactactcgg  
 660  
 tgtcaaactg ctgcagccac aggagtgtgg gtttcggagc cctgcctgtg acctctgatt  
 720  
 ctaaaattt  
 729

<210> 866  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 866  
 Ala Cys Pro Arg Arg Ser Ala His Ser Phe Ser Ala Ala Trp Trp Cys  
 1 5 10 15  
 Pro Gly Ser Thr His His Cys Leu Arg Val Gln Arg Phe Pro Phe Pro  
 20 25 30  
 Pro Ser Gln Asn Phe Leu Phe Pro Trp Pro Pro Leu Pro Pro Leu Pro  
 35 40 45  
 Pro Pro Leu Met Cys Trp Pro Pro Ser Pro Ser Pro Pro His Gly Arg  
 50 55 60  
 Leu Pro Pro Gly Val Pro Ser Pro Ala Gln Ala Ser Leu Arg Ala Arg  
 65 70 75 80  
 Thr Ala Gly

<210> 867  
 <211> 640  
 <212> DNA  
 <213> Homo sapiens

<400> 867  
 nntccggaac atcaagatcc aggcgcagaa gaccgtcaga agctgcactg gccacctcct  
 60  
 tcaggtggac tctcgttggg ggccggcgctc gctggccccc tcgcacccgg tcccgtgtca  
 120  
 catgctccag ggcgagctc ttgtccacct ttacctcacc gaaagccttg tttttgcctc  
 180  
 ggtaaatccc ttcattgagg gctttgatcc aggattcctt ctctccccc gtgggtgcct  
 240  
 ggaatttgat gtcgctgacc ttgttccttg gggatcgag caggataaag cgggtgtttc  
 300  
 gcttgaggag ggcacgaagg tcctggcact tctcatagct gccagctcc acagtctcca  
 360  
 cacacttctg atcatcctca ttctcataga ccagcagctg ggcctggcag aggagcagat  
 420  
 atcgggtcttt ccagaaaccc aggaggcccc cactgctctt cttgatccag ccagccttgt  
 480  
 ccaccatctg tgctccccga ggcttctcac cggttctctt cacaccctcc tctccatgg  
 540  
 cgagtccgcc gaggtccgc cgctccgcca ctgcttcca gcgccgcgcg ggctctgcca  
 600  
 ccgctctac gcccgccag gcggcgactc tccgcgttct  
 640

<210> 868  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 868  
 Gly Gly His Glu Gly Pro Gly Thr Ser His Ser Cys Pro Ala Pro Gln  
 1 5 10 15  
 Ser Pro His Thr Ser Asp His Pro His Ser His Arg Pro Ala Ala Gly  
 20 25 30  
 Pro Gly Arg Gly Ala Asp Ile Gly Leu Ser Arg Asn Pro Gly Gly Pro  
 35 40 45  
 His Cys Ser Ser  
 50

<210> 869  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<400> 869  
 ngggtgatgc tgctcgcggc attgagcatc tttgtgctca gcgcgctgtt tatcgacaac  
 60

ttcctgtcgc cgctgaatat ggcgaggctg ggcctggcga tttcgacggt gggcatcgct  
 120  
 gcgtgcacca tgctgttctg cctggcgctg gggcatttcg acttgctcgtt gggctcgggtg  
 180  
 atcgccctgtg ccggtgtggt cgcggggatt gtgattcgtg acaccgatag cgtggcactc  
 240  
 ggcggtgtccg ctgcgttggc catgggcctg gtagtggggc tgatcaacgg catcgtgac  
 300  
 gccaaagctgc gcatcaacgc g  
 321

<210> 870

<211> 107

<212> PRT

<213> Homo sapiens

<400> 870

Xaa	Val	Met	Leu	Leu	Ala	Ala	Leu	Ser	Ile	Phe	Val	Leu	Ser	Ala	Leu
1			5					10				15			
Phe	Ile	Asp	Asn	Phe	Leu	Ser	Pro	Leu	Asn	Met	Arg	Gly	Leu	Gly	Leu
		20					25				30				
Ala	Ile	Ser	Thr	Val	Gly	Ile	Ala	Ala	Cys	Thr	Met	Leu	Phe	Cys	Leu
		35				40					45				
Ala	Ser	Gly	His	Phe	Asp	Leu	Ser	Val	Gly	Ser	Val	Ile	Ala	Cys	Ala
	50					55				60					
Gly	Val	Val	Ala	Gly	Ile	Val	Ile	Arg	Asp	Thr	Asp	Ser	Val	Ala	Leu
65					70				75					80	
Gly	Val	Ser	Ala	Ala	Leu	Ala	Met	Gly	Leu	Val	Val	Gly	Leu	Ile	Asn
			85					90						95	
Gly	Ile	Val	Ile	Ala	Lys	Leu	Arg	Ile	Asn	Ala					
			100					105							

<210> 871

<211> 320

<212> DNA

<213> Homo sapiens

<400> 871

agatcttcag agtcctcgtc ttttaaattg gggtaacagc agcaagtcct cagaggtgtc  
 60  
 ctgagcctca aaacacatcc tggtttgtaa cgtccgcagc ctcagcaggg gctaggcaca  
 120  
 gaacaagcat tcaggacctg gaaggtacca ggcacacctg gtcctccctt cccaggcaca  
 180  
 aggcagcccc tctccattca agctctgccc cagcccagca aagagagggg tcctcagcca  
 240  
 ctgccccac cactaccaca atcatactca cctctcctgg tccatacgtg acaaaggacc  
 300  
 tgccacggcc agggagacaa  
 320

<210> 872

<211> 98

<212> PRT

<213> Homo sapiens

<400> 872

```

Met Gly Val Thr Ala Ala Ser Pro Gln Arg Cys Pro Glu Pro Gln Asn
 1           5           10           15
Thr Ser Trp Phe Val Thr Ser Ala Ala Ser Ala Gly Ala Arg His Arg
 20           25           30
Thr Ser Ile Gln Asp Leu Glu Gly Thr Ser Asp Thr Trp Ser Ser Leu
 35           40           45
Pro Arg His Lys Ala Ala Pro Leu His Ser Ser Ser Ala Pro Ala Gln
 50           55           60
Gln Arg Glu Gly Ser Ser Ala Thr Ala Pro Thr Thr Thr Thr Ile Ile
 65           70           75           80
Leu Thr Ser Pro Gly Pro Tyr Val Thr Lys Asp Leu Pro Arg Pro Gly
 85           90           95
Arg Gln

```

<210> 873

<211> 363

<212> DNA

<213> Homo sapiens

<400> 873

```

nttgtttagc atcgtttttt acgggtgtat cagcgcgttt agcagcgttt ttagcggatg
60
catcagcatg ttttgcgtca cgttttataa ctgtgctacc gtgttttagca tcatttttga
120
cggaggtatc aatacgttta gcatcgtttt taacagatgt atcaacacgg ggttcacccg
180
cttttagcaga atccccagct ctagtagcca ctttagatac ttcagatttt atatgagtcg
240
cagttgtttc agcgtgagcc atgctgaatg tagaaccaag ggccaatgta attgctaaag
300
acaaagataa tttatttagt ttcattgttc gagagaagtg tgcgaattcg gcgatacagt
360
cag
363

```

<210> 874

<211> 108

<212> PRT

<213> Homo sapiens

<400> 874

```

Met Lys Leu Asn Lys Leu Ser Leu Ser Leu Ala Ile Thr Leu Ala Leu
 1           5           10           15
Gly Ser Thr Phe Ser Met Ala His Ala Glu Thr Thr Ala Thr His Ile
 20           25           30
Lys Ser Glu Val Ser Lys Val Ala Thr Arg Ala Gly Asp Ser Ala Lys
 35           40           45
Ala Asp Glu Pro Arg Val Asp Thr Ser Val Lys Asn Asp Ala Lys Arg
 50           55           60
Ile Asp Thr Ser Val Lys Asn Asp Ala Lys His Gly Ser Thr Val Val

```

65                      70                      75                      80  
 Lys Arg Asp Ala Lys His Ala Asp Ala Ser Ala Lys Asn Ala Ala Lys  
                             85                      90                      95  
 Arg Ala Asp Thr Pro Val Lys Asn Asp Ala Lys Gln  
                             100                      105

<210> 875  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 875  
 acgcgtgaag gggaccctaa ctctgtctggg ctgtaggatg cgggcgaggc ttccacaaac  
 60  
 tcactgtctg ggggagaaga aaagcagaaa acaactcgaa tcgctaccat tcaggacgaa  
 120  
 cccgccaaagc accagctcaa gcgcaggtcc cccggaaaaa gcgcgggctt ctctctccca  
 180  
 gcgctcagaa tccctgagcc ggaggccccc cgggattcag accgccagat cccagggag  
 240  
 tgacaaatcg ccgcagaaac ttgggggaca actcggccct ggcaccgcgc ggcttcagg  
 300  
 cgcgggcagg cgcgcgccaa ctttccccgc gtgccacccc gcggctcccc cggcn  
 355

<210> 876  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 876  
 Met Arg Ala Arg Leu Pro Gln Thr His Cys Leu Gly Glu Lys Lys Ser  
 1                      5                      10                      15  
 Arg Lys Gln Leu Glu Ser Leu Pro Phe Arg Thr Asn Pro Pro Ser Thr  
                             20                      25                      30  
 Ser Ser Ser Ala Gly Pro Arg Glu Lys Ala Arg Ala Ser Leu Ser Gln  
                             35                      40                      45  
 Arg Ser Glu Ser Leu Ser Arg Arg Pro Arg Gly Ile Gln Thr Ala Arg  
                             50                      55                      60  
 Ser Pro Gly Ser Asp Lys Ser Pro Gln Lys Leu Gly Gly Gln Leu Gly  
 65                      70                      75                      80  
 Pro Gly Thr Ala Arg Leu Pro Gly Ala Gly Arg Arg Ala Pro Thr Phe  
                             85                      90                      95  
 Pro Ala Cys His Pro Ala Ala Pro Pro Ala  
                             100                      105

<210> 877  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 877  
 acgcgtactt tgggtaatga actgacgacc gctgagatcg actgccttta tctgtgttac  
 60

caatccacct atgctaaacg tggtcagcaa gggtatctca cacgagaatt ctttggtttg  
 120  
 ttggccaata ccatgggaga tcaaatcctt ttagtacagg cgtacagaga aggcgaagcg  
 180  
 atcgccgcgt cgtggtgttt ctttgatgat cattcactat atgggcgtta ttggggctgt  
 240  
 atggaagaag tggattgcct gcattttgaa gcttggtatt accaaggaat cgagttttgt  
 300  
 ctcgaaaaag gggttacagca ttctgatccg ggtacacaag gggaacacaa gattgcgcg  
 360  
 ggctttgaac ctgttttttag ccacagcgtg cattacattg ctcatcaagg ttttcgtgaa  
 420  
 gcgattggga atttctgtga ggaagaagcg caagctgtgc gcgagtatca tcaagatacc  
 480  
 cacgcgt  
 487

<210> 878

<211> 162

<212> PRT

<213> Homo sapiens

<400> 878

Thr	Arg	Thr	Leu	Gly	Asn	Glu	Leu	Thr	Thr	Ala	Glu	Ile	Asp	Cys	Leu
1				5					10					15	
Tyr	Leu	Cys	Tyr	Gln	Ser	Thr	Tyr	Ala	Lys	Arg	Gly	Gln	Gln	Gly	Tyr
			20					25					30		
Leu	Thr	Arg	Glu	Phe	Phe	Gly	Leu	Leu	Ala	Asn	Thr	Met	Gly	Asp	Gln
			35				40					45			
Ile	Leu	Leu	Val	Gln	Ala	Tyr	Arg	Glu	Gly	Glu	Ala	Ile	Ala	Ala	Ser
	50				55					60					
Trp	Cys	Phe	Phe	Asp	Asp	His	Ser	Leu	Tyr	Gly	Arg	Tyr	Trp	Gly	Cys
65				70					75					80	
Met	Glu	Glu	Val	Asp	Cys	Leu	His	Phe	Glu	Ala	Cys	Tyr	Tyr	Gln	Gly
			85					90						95	
Ile	Glu	Phe	Cys	Leu	Glu	Lys	Gly	Leu	Gln	His	Phe	Asp	Pro	Gly	Thr
			100					105					110		
Gln	Gly	Glu	His	Lys	Ile	Ala	Arg	Gly	Phe	Glu	Pro	Val	Phe	Ser	His
			115				120					125			
Ser	Val	His	Tyr	Ile	Ala	His	Gln	Gly	Phe	Arg	Glu	Ala	Ile	Gly	Asn
			130			135				140					
Phe	Cys	Glu	Glu	Glu	Ala	Gln	Ala	Val	Arg	Glu	Tyr	His	Gln	Asp	Thr
145					150				155					160	
His	Ala														

<210> 879

<211> 993

<212> DNA

<213> Homo sapiens

<400> 879

nncttagcat ttaagccaac gaggcagcta atgtcctctg aacagcaaag gaaattcagc  
 60

agccagtcga gtagggctct gacccctcct tcctacagta ctgctaaaaa ttcattggga  
 120  
 tcaagatcca gtgaatcctt tgggaagtac acatcgccag taatgagtga gcatggggac  
 180  
 gagcacaggc agctcctctc tcaccaatg caaggccctg gactccgtgc agctacctca  
 240  
 tccaaccact ctgtggacga gcaactgaag aatactgaca cgcacctcat cgacctggtg  
 300  
 accaatgaga ttatcaccca aggacctcca gtggactgga atgacattgc tgggtctcgac  
 360  
 ctggtgaagg ctgtcattaa agaggagggt ttatggccag tgttgaggtc agacgcgttc  
 420  
 agtggactga cggccttacc tcggagcatc cttttatttg gacctcgggg gacaggcaaa  
 480  
 acattattgg gcagatgcat cgctagtcag ctgggggcca catttttcaa aattgccggt  
 540  
 tctggactag tcgccaaggg gttaggagaa gcagagaaaa ttatccatgc ctcttttctt  
 600  
 gtggccaggt gtcgccagcc ctcggtgatt tttgttagtg acattgacat gcttctctcc  
 660  
 tctcaagtga atgaggaaca tagtcagtc agtcggatga gaaccgaatt tctgatgcaa  
 720  
 ctggacactg tactaacttc ggctgaggac caaatcgtag taatttgtgc caccagtaaa  
 780  
 ccagaagaaa tagatgaatc ccttcggagg tacttcatga aacgactttt aatcccactt  
 840  
 cctgacagca cagcgaggca ccagataata gtacaactgc tctcacagca caattactgt  
 900  
 ctcaatgaca aggagtttgc actgctcgtc cagcgcacag aaggcttttc tggactagat  
 960  
 gtggctcatt tgtgtcagga agcagtgggtg ggc  
 993

&lt;210&gt; 880

&lt;211&gt; 331

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 880

Xaa	Leu	Ala	Phe	Lys	Pro	Thr	Arg	Gln	Leu	Met	Ser	Ser	Glu	Gln	Gln
1				5				10					15		
Arg	Lys	Phe	Ser	Ser	Gln	Ser	Ser	Arg	Ala	Leu	Thr	Pro	Pro	Ser	Tyr
			20					25					30		
Ser	Thr	Ala	Lys	Asn	Ser	Leu	Gly	Ser	Arg	Ser	Ser	Glu	Ser	Phe	Gly
		35					40					45			
Lys	Tyr	Thr	Ser	Pro	Val	Met	Ser	Glu	His	Gly	Asp	Glu	His	Arg	Gln
	50					55					60				
Leu	Leu	Ser	His	Pro	Met	Gln	Gly	Pro	Gly	Leu	Arg	Ala	Ala	Thr	Ser
65					70					75				80	
Ser	Asn	His	Ser	Val	Asp	Glu	Gln	Leu	Lys	Asn	Thr	Asp	Thr	His	Leu
			85					90						95	
Ile	Asp	Leu	Val	Thr	Asn	Glu	Ile	Ile	Thr	Gln	Gly	Pro	Pro	Val	Asp
			100					105					110		
Trp	Asn	Asp	Ile	Ala	Gly	Leu	Asp	Leu	Val	Lys	Ala	Val	Ile	Lys	Glu

115 120 125  
 Glu Val Leu Trp Pro Val Leu Arg Ser Asp Ala Phe Ser Gly Leu Thr  
 130 135 140  
 Ala Leu Pro Arg Ser Ile Leu Leu Phe Gly Pro Arg Gly Thr Gly Lys  
 145 150 155 160  
 Thr Leu Leu Gly Arg Cys Ile Ala Ser Gln Leu Gly Ala Thr Phe Phe  
 165 170 175  
 Lys Ile Ala Gly Ser Gly Leu Val Ala Lys Gly Leu Gly Glu Ala Glu  
 180 185 190  
 Lys Ile Ile His Ala Ser Phe Leu Val Ala Arg Cys Arg Gln Pro Ser  
 195 200 205  
 Val Ile Phe Val Ser Asp Ile Asp Met Leu Leu Ser Ser Gln Val Asn  
 210 215 220  
 Glu Glu His Ser Pro Val Ser Arg Met Arg Thr Glu Phe Leu Met Gln  
 225 230 235 240  
 Leu Asp Thr Val Leu Thr Ser Ala Glu Asp Gln Ile Val Val Ile Cys  
 245 250 255  
 Ala Thr Ser Lys Pro Glu Glu Ile Asp Glu Ser Leu Arg Arg Tyr Phe  
 260 265 270  
 Met Lys Arg Leu Leu Ile Pro Leu Pro Asp Ser Thr Ala Arg His Gln  
 275 280 285  
 Ile Ile Val Gln Leu Leu Ser Gln His Asn Tyr Cys Leu Asn Asp Lys  
 290 295 300  
 Glu Phe Ala Leu Leu Val Gln Arg Thr Glu Gly Phe Ser Gly Leu Asp  
 305 310 315 320  
 Val Ala His Leu Cys Gln Glu Ala Val Val Gly  
 325 330

<210> 881  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 881  
 cgctgagcgc tgcacaatgc tccaggaacc ggtgtgtatg aggccgggga ttctaccggt  
 60  
 cgtgggtttgc agggcatgcg tgagcgcgcc cgtatccatg gcggcaccgc gcgctggggc  
 120  
 gactcgcagt attatgaagg cggtttcaac gtcacggtgg agattccaac atgagcggcc  
 180  
 aaaggatgaa catggacacg acgcgcccc aacacggtcg gggcttgccg acgatcagcc  
 240  
 ggctgggtgc gcaccggttt tgccatggtg ctggattcgc aggacgacat caccgtggcc  
 300  
 tggcaagccg acn  
 313

<210> 882  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 882  
 Arg Val Ser Val Asp Asn Ala Pro Gly Thr Gly Val Tyr Glu Ala Gly



```

      1           5           10           15
Asp Ser Thr Gly Arg Gly Leu Gln Gly Met Arg Glu Arg Ala Arg Ile
      20           25           30
His Gly Gly Thr Ala Arg Trp Gly Asp Ser Gln Tyr Tyr Glu Gly Gly
      35           40           45
Phe Asn Val Thr Val Glu Ile Pro Thr
      50           55

```

<210> 883  
 <211> 576  
 <212> DNA  
 <213> Homo sapiens

```

<400> 883
naattaagat ctgggggtccc agtgtcattg gtgaaggcct tgggattcga ggcagctgag
60
tcctcactga ccaaggcaag ccatgcttct gagtgcctga ggccaccgaa atgaacaaat
120
ggaaaacact cccatctttt tcaagcctac ctttttagcag aagaggcaga tacacaagcc
180
ctaaagatgt aacatcaggc tgagtggagg aaggctgaga agaaaaataa agcagggtca
240
ggaggagaga gtgatgtcag gatgcccttg tgcttactcc agcctccttg tgaaaaccca
300
gctctcctgt ctcccagtga agacttggat ggcagccatc agggaaggct ggggtcccagc
360
tgaggagtatg ggtgtgagct ctatagacca tccctctctg caatcaataa acacttgcct
420
gtgaaagagg cccaagccac catccgcatg gacaccagtg caagtggccc caccgcctg
480
gtcctcagtg actgtgccac cagccatggg agcctgcgca tccaactgct gcataagctc
540
tccttctctg tgaacgcctt agctaagcag gtcatg
576

```

<210> 884  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 884
Met Pro Leu Cys Leu Leu Gln Pro Pro Cys Glu Asn Pro Ala Leu Leu
1           5           10           15
Ser Pro Ser Glu Asp Leu Asp Gly Ser His Gln Gly Arg Leu Gly Pro
      20           25           30
Ser Trp Glu Tyr Gly Cys Glu Leu Tyr Arg Pro Ser Leu Ser Ala Ile
      35           40           45
Asn Lys His Leu Pro Val Lys Glu Ala Gln Ala Thr Ile Arg Met Asp
      50           55           60
Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys Ala Thr
      65           70           75           80
Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser Phe Leu
      85           90           95
Val Asn Ala Leu Ala Lys Gln Val Met

```

100

105

<210> 885  
 <211> 370  
 <212> DNA  
 <213> Homo sapiens

<400> 885  
 actagtggcg cccatcatccg ggccgctgtc ccgctctcgg agtcgggtgc gttggagtcc  
 60  
 ggtgaggcga tgctgacgaa cgacacaccg gtgacttggg atggcgaggaa agtacggggc  
 120  
 aggcgggtgt cgcgcctcgg tgcgatcgag ttgtcgtcga ccccggtccg ccagatccg  
 180  
 gtacgggctc gccacgtggc gctggaagca gtgaggtctg ggggacttga cgtacgcgagc  
 240  
 ctgacgaaga acggtgaatc tttgcgacgc cgtcttgccc tggcccatcg ggtgtttggt  
 300  
 gatccctggc ccgatgtcag cgatgaggct ctgctagcct gcgccgagga gtggcttgac  
 360  
 ctgcgacggt  
 370

<210> 886  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 886  
 Thr Ser Gly Ala Leu Ile Arg Ala Ala Val Pro Leu Ser Glu Ser Ala  
 1 5 10 15  
 Ala Leu Glu Ser Gly Glu Ala Met Leu Thr Asn Asp Thr Pro Val Thr  
 20 25 30  
 Trp Asp Gly Gly Lys Val Arg Gly Arg Arg Val Ser Arg Leu Gly Ala  
 35 40 45  
 Ile Glu Leu Ser Ser Thr Pro Val Arg Pro Asp Pro Val Arg Ala Arg  
 50 55 60  
 His Val Ala Leu Glu Ala Val Arg Ser Gly Gly Leu Asp Val Ala Ser  
 65 70 75 80  
 Leu Thr Lys Asn Gly Glu Ser Leu Arg Arg Arg Leu Ala Leu Ala His  
 85 90 95  
 Arg Val Phe Gly Asp Pro Trp Pro Asp Val Ser Asp Glu Ala Leu Leu  
 100 105 110  
 Ala Cys Ala Glu Glu Trp Leu Asp Leu Asp Ala  
 115 120

<210> 887  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 887  
 cagggcggtg cgctcggtcg cgtgctgccg atggatcatgc tcggaggctt aaccgccatc  
 60

attatctccg gctgcctgaa ccagcttggg aaacgctatc cgcactctgac cggcgaaggc  
 120  
 caactgatgc caaacctgac taatgctgat accacggctt cccaaccggc gttctccggg  
 180  
 aaagcggacg tgaccacat tgcctccggc gcgttgctgg ccgtgctgct ttacatggg  
 240  
 ggtagggttg ttcacaagtt gattggcctg cctgctccgg ttggcatgtt gtttgtggcg  
 300  
 gtgctgggtca aactgtgcaa cggcgcttct ccccgctgc tcgaaggctc gcagggtggt  
 360  
 tacaaattct tccagacctc cgtcacctat ccgattctgt tcgccgttgg cgtggcgatt  
 420  
 acgccgtggc aggaactggg caacgcg  
 447

<210> 888

<211> 149

<212> PRT

<213> Homo sapiens

<400> 888

Gln	Gly	Val	Ala	Leu	Gly	Arg	Val	Leu	Pro	Met	Val	Met	Leu	Gly	Gly
1				5					10					15	
Leu	Thr	Ala	Ile	Ile	Ile	Ser	Gly	Cys	Leu	Asn	Gln	Leu	Gly	Lys	Arg
			20					25					30		
Tyr	Pro	His	Leu	Thr	Gly	Glu	Gly	Gln	Leu	Met	Pro	Asn	Arg	Ala	Asn
		35				40						45			
Ala	Asp	Thr	Thr	Ala	Ser	Gln	Pro	Ala	Phe	Ser	Gly	Lys	Ala	Asp	Val
	50					55					60				
Thr	Thr	Ile	Ala	Ser	Gly	Ala	Leu	Leu	Ala	Val	Leu	Leu	Tyr	Met	Val
65					70					75				80	
Gly	Arg	Leu	Val	His	Lys	Leu	Ile	Gly	Leu	Pro	Ala	Pro	Val	Gly	Met
			85					90					95		
Leu	Phe	Val	Ala	Val	Leu	Val	Lys	Leu	Cys	Asn	Gly	Ala	Ser	Pro	Arg
		100						105					110		
Leu	Leu	Glu	Gly	Ser	Gln	Val	Val	Tyr	Lys	Phe	Phe	Gln	Thr	Ser	Val
	115					120						125			
Thr	Tyr	Pro	Ile	Leu	Phe	Ala	Val	Gly	Val	Ala	Ile	Thr	Pro	Trp	Gln
	130					135						140			
Glu	Leu	Val	Asn	Ala											
145															

<210> 889

<211> 450

<212> DNA

<213> Homo sapiens

<400> 889

ggtaccaccc cacacctgac aagaggtggc cagggaggaa gggagggttc ttacctcccc  
 60  
 atctcccctc agtaaaattc aggatgccca gtgaagtttg aatgtcagat aaacaatttg  
 120  
 ttagtataag gatgtaccta gcattgaaat gatgccttgt aatttactaa atctgcaact  
 180

atgcagcctt atttcatggc gggcagtggc ggtgatccca ggtttcaggg gcggggaagg  
 240  
 gtgctgggga gatcctgagg tcaggaaccc gtacacctct gcttctgccc tctcttcct  
 300  
 gtgccggcca caaggcaatg actcctgtgt ggggtgcagag gcagaaatgg gtctggaagg  
 360  
 ggattcccag tgtctggcaa gttctggtaa attctgcatt ggaggttctc tctgtagtaa  
 420  
 ggggagttgg cctggccgcc cttcacgcgt  
 450

<210> 890  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 890  
 Met Met Pro Cys Asn Leu Leu Asn Leu Gln Leu Cys Ser Leu Ile Ser  
 1 5 10 15  
 Trp Arg Ala Val Ala Val Ile Pro Gly Phe Arg Gly Gly Glu Gly Cys  
 20 25 30  
 Trp Gly Asp Pro Glu Val Arg Asn Pro Tyr Thr Ser Ala Ser Ala Leu  
 35 40 45  
 Ser Ser Leu Cys Arg Pro Gln Gly Asn Asp Ser Cys Val Gly Ala Glu  
 50 55 60  
 Ala Glu Met Gly Leu Glu Gly Asp Ser Gln Cys Leu Ala Ser Ser Gly  
 65 70 75 80  
 Lys Phe Cys Ile Gly Gly Ser Leu Cys Ser Lys Gly Ser Trp Pro Gly  
 85 90 95  
 Arg Pro Ser Arg  
 100

<210> 891  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<400> 891  
 nncaccgtcc ccgtactgga tccgcgcgag gatttcgccg actgcatgca cattgacgta  
 60  
 ctggatccct tccacactga caacaccagt gagcacagtg acctggccac agatggccag  
 120  
 actaacggcc cggctgatag cgggactggc acccactctg agcagggaaa ctccgacata  
 180  
 tctagccccg tcagctctag tgacgtgct aacaccaccg acagcactgc tggcaatacc  
 240  
 ggtgaaggta ctgccgcgaa tatgcctggg gacatggctc attcttcgac ggctacccac  
 300  
 ccctatgcaa gcaccggt  
 318

<210> 892  
 <211> 106  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 892

```

Xaa Thr Val Pro Val Leu Asp Pro Arg Glu Asp Phe Ala Asp Cys Met
 1           5           10           15
His Ile Asp Val Leu Asp Pro Phe His Thr Asp Asn Thr Ser Glu His
      20           25           30
Ser Asp Leu Ala Thr Asp Gly Gln Thr Asn Gly Pro Ala Asp Ser Gly
      35           40           45
Thr Gly Thr His Ser Glu Gln Gly Asn Ser Asp Ile Ser Ser Pro Val
      50           55           60
Ser Ser Ser Asp Ala Ala Asn Thr Thr Asp Ser Thr Ala Gly Asn Thr
      65           70           75           80
Gly Glu Gly Thr Ala Ala Asn Met Pro Gly Asp Met Ala His Ser Ser
      85           90           95
Thr Ala Thr His Pro Tyr Ala Ser Thr Gly
      100           105

```

&lt;210&gt; 893

&lt;211&gt; 510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 893

```

nnggatccta tccctgaatc taaggttggt gacacatgtg tttgggatag caaggtagag
60
aatgcacaga aaaagcctgt ggaaaacagg atgaaggagg aaaaagcag catcagggaa
120
gcaatcagca aagccaagag tacagcaaata ataaagacag aacaggaagg tgaggcatct
180
gagaagagct tgcattctgag cccacagcat atcacacacc agactatgcc tataggacag
240
agaggcagtg agcaaggcaa acgtgtggag aacattaatg gaacctccta ccctagtcta
300
cagcagaaaa ccaatgctgt taagaaatta cataaatgtg atgaatgtgg gaaatccttc
360
aatataatt cccgccttgt tcaacataaa attatgcaca ctggggaaaa gcgctatgaa
420
tgtgatgact gtggagggac tttccggagc agctcgagcc ttcgggtcca caaacggatc
480
cacactgggt acggagagaa gacaacgcgt
510

```

&lt;210&gt; 894

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 894

```

Xaa Asp Pro Ile Pro Glu Ser Lys Val Gly Asp Thr Cys Val Trp Asp
 1           5           10           15
Ser Lys Val Glu Lys Ser Gln Lys Lys Pro Val Glu Asn Arg Met Lys
      20           25           30
Glu Asp Lys Ser Ser Ile Arg Glu Ala Ile Ser Lys Ala Lys Ser Thr

```

```

      35          40          45
Ala Asn Ile Lys Thr Glu Gln Glu Gly Glu Ala Ser Glu Lys Ser Leu
      50          55          60
His Leu Ser Pro Gln His Ile Thr His Gln Thr Met Pro Ile Gly Gln
      65          70          75          80
Arg Gly Ser Glu Gln Gly Lys Arg Val Glu Asn Ile Asn Gly Thr Ser
      85          90          95
Tyr Pro Ser Leu Gln Gln Lys Thr Asn Ala Val Lys Lys Leu His Lys
      100          105          110
Cys Asp Glu Cys Gly Lys Ser Phe Lys Tyr Asn Ser Arg Leu Val Gln
      115          120          125
His Lys Ile Met His Thr Gly Glu Lys Arg Tyr Glu Cys Asp Asp Cys
      130          135          140
Gly Gly Thr Phe Arg Ser Ser Ser Ser Leu Arg Val His Lys Arg Ile
      145          150          155          160
His Thr Gly Tyr Gly Glu Lys Thr Thr Arg
      165          170

```

&lt;210&gt; 895

&lt;211&gt; 1119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 895

```

cggccgcgaga attgggtcgg gcatttccag atgttcccgt ggttgattcg tccggcaatc
60
acgttcggga gagggtcgat tcaactcccc gattaatcgt tgccacccca agggccgaac
120
ccgcaccgga atcgggcttt tcctggggct gccttccctaa atgcgggtgtc ctccttgctg
180
aggcctggcc tggcgggcggg ggagcagacc gtcgatcggg ggatggcaat cctggccttg
240
gtccgatcag tgcgggatgg gggccgggca gttatcgctg ggccttcgga ggacgccgcc
300
ttgcaggcca tggttcgaaa tgatccagtc gggcgggcca cacgtgaact cgccgatcgt
360
cgggaggcac atttcccgcc cgcgggtgccg tgcggaattg tcgacgggtga cccgaaagcg
420
gtggctacag cggcacagcg actacgcgag tggttcgga cgcacctga gatgcttggc
480
ccagctccac aaccacgccg tgccagcgaa tcggaacggg atcgaattat cgtgcgtcct
540
cgtagcacga tgctctctgc cgagctttcc cagggtctat ttcggctacg ttccaaacac
600
actatgagcc gcgaaccagg aagcttacgc gtggatcatc acccgcccaa cttgttgtag
660
ggtcggtagg cttgcggtgt gagacttctt tttgctggta ccccggaact ggccgtccca
720
acgcttaccg ccttggttagc cgatccccgt cagaggttag ctgccgtcct gacgcgtccg
780
gatgcagcag taggacggca ccgtactcca cgtccatgcc cggtcgccaa ggctgccgag
840
gaactcggta tccccgccat taaggcgacc agcgtgaagt ccggcgaggg tcacgatgcc
900

```

gtcacttccc tcgatgtcga cgtagccgct gtcgtagcct acggaggctct cattccccgcc  
 960  
 gatctgctgg cagtaccacg acacggctgg attaacttac acttttctct cctaccgcga  
 1020  
 tggcgcgggc ctgctcccat acaacggggc atcatggcgg gggatgagga gacggggcgt  
 1080  
 tgtgtctttc agctagtga aagcctcgat gccggaccg  
 1119

<210> 896

<211> 147

<212> PRT

<213> Homo sapiens

<400> 896

Val	Arg	Leu	Leu	Phe	Ala	Gly	Thr	Pro	Asp	Val	Ala	Val	Pro	Thr	Leu
1				5				10					15		
Thr	Ala	Leu	Val	Ala	Asp	Pro	Arg	His	Glu	Val	Ala	Ala	Val	Leu	Thr
			20				25						30		
Arg	Pro	Asp	Ala	Ala	Val	Gly	Arg	His	Arg	Thr	Pro	Arg	Pro	Cys	Pro
		35					40					45			
Val	Ala	Lys	Ala	Ala	Glu	Glu	Leu	Gly	Ile	Pro	Ala	Ile	Lys	Ala	Thr
	50					55				60					
Ser	Val	Lys	Ser	Gly	Glu	Gly	His	Asp	Ala	Val	Thr	Ser	Leu	Asp	Val
65				70				75					80		
Asp	Val	Ala	Val	Val	Val	Ala	Tyr	Gly	Gly	Leu	Ile	Pro	Ala	Asp	Leu
			85					90					95		
Leu	Ala	Val	Pro	Arg	His	Gly	Trp	Ile	Asn	Leu	His	Phe	Ser	Leu	Leu
			100					105					110		
Pro	Arg	Trp	Arg	Gly	Ala	Ala	Pro	Ile	Gln	Arg	Ala	Ile	Met	Ala	Gly
		115				120						125			
Asp	Glu	Glu	Thr	Gly	Ala	Cys	Val	Phe	Gln	Leu	Val	Glu	Ser	Leu	Asp
	130					135					140				
Ala	Gly	Pro													
145															

<210> 897

<211> 384

<212> DNA

<213> Homo sapiens

<400> 897

gagctcgagg ctggcaagcc ggaagtgccg ctgttcccga cgcccgcacg catgtcgctc  
 60  
 gacgactacc tcgtccagct gtcgaaggaa gggctcgaga cccgtctcgc gcagctgtat  
 120  
 ccggtcgaag cccgacgcga cgcgcagcgc gacacctact acaagcgcct cgaattcgag  
 180  
 tgcgggacca tcacgaagat gggctttccc ggctacttcc tgatcgtcgc ggacttcac  
 240  
 aactgggcaa agaacaacgg cgtgccggtc ggcccggggc gcggctcggg cgccggttcg  
 300  
 ctggctcgct atgcgctcgg cattaccgat ctcgaagtac tgcgctacga cctgctgttc  
 360

gagcgcttcc tgaacccgga acgc  
384

<210> 898  
<211> 128  
<212> PRT  
<213> Homo sapiens

<400> 898  
Glu Leu Glu Ala Gly Lys Pro Glu Val Pro Leu Phe Pro Thr Pro Asp  
1 5 10 15  
Gly Met Ser Leu Asp Asp Tyr Leu Val Gln Leu Ser Lys Glu Gly Leu  
20 25 30  
Glu Thr Arg Leu Ala Gln Leu Tyr Pro Val Glu Ala Arg Arg Asp Ala  
35 40 45  
Gln Arg Asp Thr Tyr Tyr Lys Arg Leu Glu Phe Glu Cys Gly Thr Ile  
50 55 60  
Thr Lys Met Gly Phe Pro Gly Tyr Phe Leu Ile Val Ala Asp Phe Ile  
65 70 75 80  
Asn Trp Ala Lys Asn Asn Gly Val Pro Val Gly Pro Gly Arg Gly Ser  
85 90 95  
Gly Ala Gly Ser Leu Val Ala Tyr Ala Leu Gly Ile Thr Asp Leu Glu  
100 105 110  
Val Leu Arg Tyr Asp Leu Leu Phe Glu Arg Phe Leu Asn Pro Glu Arg  
115 120 125

<210> 899  
<211> 6171  
<212> DNA  
<213> Homo sapiens

<400> 899  
ttctccaagg ccttaaactc cagatacttg aatgcactcg caaatagtct ggagtccttta  
60  
ccatccgcct gcactggaga ggagagtttg agtatgctgc agctgcttta tctgaccaac  
120  
aatctcctga cggatcagtg catacctgtc ctggtagggc acctgcacct gcgaatcttg  
180  
caccttgcaa acaatcagtt acagaccttt cctgcaagca aactaaataa attggagcaa  
240  
ttggaggaac tgaacctaag tggcaacaag cttaaaacca tcccacaac catagcaaac  
300  
tgtaaaaggc tgcacaccct tgttgcacac tccaacaaca tcagcatttt ccagaaata  
360  
ctgcagttgc ctcagatcca gttttagtac ctaagttgca acgacttgac agaaatcctg  
420  
attccagagg ctttgctgc tacattacaa gaccttgacc tgactggaaa taaaatctg  
480  
gttctggaac acaagacact ggacatattt agccatatca caacctgaa aattgatcag  
540  
aaacctttgc caaccacaga ttctacagtt acgtcaacct tctggagcca tggactggct  
600  
gagatggcag ggcagagaaa taagctgtgt gtctcagcac ttgctatgga tagctttgca  
660



gagggggtgg gagctgtgta tggcatgttt gatggagacc gaaatgagga gctcccgcgc  
720  
ctgctgcagt gtacgatggc agatgtgctt ttagaagagg tacagcagtc aactaatgac  
780  
acagttttca tggctaacac cttcttggtta tctcacagga aattaggaat ggctggccag  
840  
aagttgggct cctccgctct cctgtgctac atccgccctg aactgccga tccagcaagt  
900  
agcttttagct tgactgtage caatgttggc acgtgccaaag cagtccctgtg ccgaggtggg  
960  
aagccagtgc ccctctctaa agtcttcagc ctggagcagg acccagagga ggctcaaagg  
1020  
gtgaaggacc aaaaagccat catcacagag gacaacaaag tgaatgggggt aacctgctgt  
1080  
accggatgc tgggctgtac atacctctac ccttgatcc tcccaagcc ccacatatct  
1140  
tccactccgc tgaccattca agatgagttg ctgattctgg gaaacaaagc attgtgggaa  
1200  
cacttgctct acacagaagc tgtcaatgct gtacgtcacg tacaagacc attagcagct  
1260  
gctaagaagc tgtgcacatt agcgcagagc tatggctgtc aggacagtgt aggggcgatg  
1320  
gtagtttatt tgaatattgg tgaggaaggc tgcacttgtg aaatgaatgg gctcacctc  
1380  
ccaggtcctg tgggatttgc ttcaaccacc actatcaagg atgcccctaa gccagccact  
1440  
ccatcctcta gcagtgggat tgcctctgag ttcagcagtg agatgtccac ctgagagtg  
1500  
agcagtgaag tgggggtccac tgcttctgat gagcataatg ctgggggcct ggacactgcc  
1560  
ttgcttccga ggccagagcg gcgctgcagc ctccacccaa caccacctc tgggctgttt  
1620  
cagcgccagc cttcttctgc taccttctcc agtaaccagt ctgacaacgg cctggacagt  
1680  
gatgatgacc agcccgttga gggggtcata accaatggca gcaaggtaga ggtggaagta  
1740  
gacatccact gctgcagggg gagggatctg gagaactcac ccctctcat agagagtct  
1800  
cctaccctgt gttctgagga acatgctaga gggctgtgtt ttgggatccg aagacagaac  
1860  
agtgtgaata gtggcatgct cctgccaatg agcaaggaca ggatggagtt acagaagtct  
1920  
ccctccacct cctgcctcta tgggaagaaa ctctccaatg gctctattgt gcccctagag  
1980  
gacagcctga acctcattga agtggccaca gaagtgccca agaggaaaac tggctatttt  
2040  
gctgccccca ctgagatgga accagaggac cagtttgttg tgcctcatga cctggaagaa  
2100  
gaagtgaagg aacaaatgaa acagcaccag gacagccggc tcgagcctga gccccatgaa  
2160  
gaggatcgga ccgagcccc ggaggagtgc gacacagcac tatgactgcc cactgggca  
2220  
cagtgtggga ggaggctgtg cagggttggg gtagggactt gctagaggca ttctgcctct  
2280

acatttcttt ttgtttgttc gttttttttt tgtttgtttg ttttgagacg gagtcttgct  
2340  
cagtcgctca ggctggagtg caatgggtggg gtctcggttc actgcagcct ctgtccctgg  
2400  
gttcaagcca ttctcctgtc tcagcctccc gagtagctgg gattacaggc acctgccatt  
2460  
atgcccggct aagttttatt ttttttttta gagacggggg ttcacatgt tggccaggct  
2520  
ggtgttgaac tcttgacctc aggtgatcca cctcctctg cctcccaaag tgctgtgatt  
2580  
acaggcctca gccaccatgc ccagccctgc gtctacattt ctaaaccata gctgtgtggg  
2640  
gttgaactcg gagccaaaaa gtgtgagagc catcaggggc tggctctgga taaactggta  
2700  
gccactatca gtgttaagtt tcacatttaa cctgcattgg aattcccagg ggtactggga  
2760  
agaaagcagc tgttctgtat cagtcctacc acctgccatt aaccctttct ctctaggat  
2820  
cattttgaga atttgcctgc ctgggcagga aagggactat ttctgtggag gaaaaaagtg  
2880  
aagattgatt ctctttacta gttgctgctg atggatctct gtgacagaga aatcacctta  
2940  
tctcagacta atgggggtgtg atgtgactag tcacatggct tttcattctt ctctacgaga  
3000  
atcacgccta tcaaaatgat gtctgttgga aatgtagaac caatcaaaca gataatttat  
3060  
gtatgtaatg taatgagagc acttttcatt gactgtgaac tttttatttt tgaatctgca  
3120  
ctcgagccaa tcttcttaga ggcagcccg cacttcctc cataggcaga gagagaactg  
3180  
ggtgttgagg acttattcga gggatatagga agggccctgt gaagttgatt taacttttgg  
3240  
atgtcagact gtgaaagctc ctgagaaact tggggtaata ggaattctct ttggggatga  
3300  
aaatggggaa ggcgtgagga cctagactac ttctccctag atcagaaaaa gagaattacc  
3360  
ccttgacaaa tatgatacct gctaggtatt tcccaggga atttagggat tggcctcttt  
3420  
ccctagcatg tggaggaatt ggcagacagc ttcctaaggg cggggagcgg gggcccaagg  
3480  
ccgacactgc ttgcatccac gtgaccttaa gttatggcag atgactctga aacggactga  
3540  
ggccaatgag aacagatgga tggagcactc aggttagact tgttccttct cctatgctgg  
3600  
aggagagggga tggttctcta gaatgttgga ggtgagttga gagctcgcct cttgaatgtt  
3660  
gaacagtgtg ctcttctgaa aactgcatat tcactttatg tggtttcaga atactgggct  
3720  
caatactaac ataagaaaga cacttcattg agaaattctt aagcttacag aaaacctata  
3780  
ctctttgcac attccacata accctagcaa aatgcagttt cttcatactt ctgtcacttt  
3840  
ttccattgga agatttgctt aggaaaatta attcctattt attcccacaa aatggttgga  
3900

ttgcttgatt ttaccaatg gggaaatgtgc tttgaatttt tggaacactt ttacaattaa  
3960  
aaataaagta gggccatttt taatttgttt catcagaaac tatgttaaag agaggggttaa  
4020  
atataaatat attttcgtgt gtatttttgg gaagattttt gttcaaagca atagtcaaaa  
4080  
tcagatgacc tgtccataat aattatgtgt cttcatcttc tcagaggccc catgctcata  
4140  
tgcacgtgtc attgggatac actcttgggg gatttggtac actctaattg atgtctaattg  
4200  
ttcaaccctt cgagaatctg aacttgagtc ccagattgt caaactactg gtcagctatt  
4260  
gagaatttta gaactcaggt ctttgatttg aagtagggaa catagtggct cacacagagt  
4320  
ttaggtgctg ttagaaagat gggaacaaga gtgttttgcc accttatttt tatatgggaa  
4380  
atttttttta atgaagaaaa aatgaaaatg aaataacagg atgatagtga tgagtgatgt  
4440  
aaaacatctt acttagatgg cagaaccttc gggttgtaga atagtgatgt ctaaaaatta  
4500  
aagttatttt gggaatacac cactttaata gtatagtctt ataaaaatta ttcattatgg  
4560  
tgaaccttct ttgtctgcta ttctttccc aacctactta ttggaaccac ctcaaaaccc  
4620  
agttctgaaa tgaccttacc aaaagtaaat gtatttattt tttagtcagc agaactctgt  
4680  
aattccaaat gttgttctgt gtggtagaat tttttttcag gaaccattag gttgtattga  
4740  
aaatctttgt tataggcgat accaaaactg attattcttt tttgcagtct gctttaattc  
4800  
atgtccttct gcagttgctc tgtattaaaa cagggtaaaa aggccatagc ccattatgaa  
4860  
aaatataata caaaactctt tgacctatga ggtaacttac agacattgtg ttttctaaac  
4920  
aggctgtcag tgaaagcccg tatctgtctc cagggtgaatg taatttactt ccgagtactt  
4980  
taccagagg atgtattccc cagggtgggca gagtacagtt gatctctagc acagacagag  
5040  
attctggcct ctgcataatc tcagggtctt gtgtgtacct cccattgagt agagaagctt  
5100  
aagataattt ctgagagaag aacactgctg attgtgggag cagtttagga gtccatggaa  
5160  
aaaagaaaaa tacatgtgtc ttggcagcca tgggtgattt ttgtccaaat ggattggaag  
5220  
gatatttgaa tatttgaatg ttggtatgac ataaagctgc agtgcaactat agagtcaagt  
5280  
cattgaatta ccaactctga tacagggtt tattgtacta ctgtgaagtg tatgtgtgca  
5340  
atacattggt gagttcattt actggtgtac ggaagagcca gcaggagcag cgtggtcatt  
5400  
gctgggtgct attacagttg cttgtagtga gtgctgtttt ccaggagatg gagccagttg  
5460  
gggtgtggcag atctactgaa tatcaaatga tgctcttctt cccatgtaga cttcagcaa  
5520

aagccggtac ttggaagcca caggctcacc ttctctatct atccaataat tattaatgaa  
5580  
gagacctcca taagggagca gctggctggt atcgataaat gtaccaatta ttaaataatt  
5640  
agtctccaag ccattcagtg atgtcttcag catcactata ggactgtcta gtgtcacttt  
5700  
ttacttcctt ctgggtggag gctttccgac tcccaatcat gaaggcaagt taatctttcc  
5760  
agttagtgc ttttgcccca tagttggggt aagcacttcc tagattgaga aaaagcagct  
5820  
acagtcaatc ctgctctggt tgcctcattt ggtgatcagt cagtcacaca taagttcctt  
5880  
gtattctaaa tttcatgcac ttctcccaga tgctataggg tttctctca ctgttgccaa  
5940  
tggatgtcat ccagacagtg ggctcatatc ttacgggttt gtgcaatcat tgtcgtattg  
6000  
tagtcttaag actcattata gtgtattttt gatatttttg aaatgtgtta aattttttaa  
6060  
ttcagtaata tgagccagag catgttgcag caaatctatt gtttgtaaaa ataacaataa  
6120  
caataataaa taaaataaag tggaatcttt ttcatggctt tgttttaaaa a  
6171

<210> 900  
<211> 734  
<212> PRT  
<213> Homo sapiens

<400> 900  
Phe Ser Lys Ala Leu Asn Leu Arg Tyr Leu Asn Ala Ser Ala Asn Ser  
1 5 10 15  
Leu Glu Ser Leu Pro Ser Ala Cys Thr Gly Glu Glu Ser Leu Ser Met  
20 25 30  
Leu Gln Leu Leu Tyr Leu Thr Asn Asn Leu Leu Thr Asp Gln Cys Ile  
35 40 45  
Pro Val Leu Val Gly His Leu His Leu Arg Ile Leu His Leu Ala Asn  
50 55 60  
Asn Gln Leu Gln Thr Phe Pro Ala Ser Lys Leu Asn Lys Leu Glu Gln  
65 70 75 80  
Leu Glu Glu Leu Asn Leu Ser Gly Asn Lys Leu Lys Thr Ile Pro Thr  
85 90 95  
Thr Ile Ala Asn Cys Lys Arg Leu His Thr Leu Val Ala His Ser Asn  
100 105 110  
Asn Ile Ser Ile Phe Pro Glu Ile Leu Gln Leu Pro Gln Ile Gln Phe  
115 120 125  
Val Asp Leu Ser Cys Asn Asp Leu Thr Glu Ile Leu Ile Pro Glu Ala  
130 135 140  
Leu Pro Ala Thr Leu Gln Asp Leu Asp Leu Thr Gly Asn Thr Asn Leu  
145 150 155 160  
Val Leu Glu His Lys Thr Leu Asp Ile Phe Ser His Ile Thr Thr Leu  
165 170 175  
Lys Ile Asp Gln Lys Pro Leu Pro Thr Thr Asp Ser Thr Val Thr Ser  
180 185 190  
Thr Phe Trp Ser His Gly Leu Ala Glu Met Ala Gly Gln Arg Asn Lys

195	200	205
Leu Cys Val Ser Ala	Leu Ala Met Asp Ser Phe Ala	Glu Gly Val Gly
210	215	220
Ala Val Tyr Gly Met Phe	Asp Gly Asp Arg Asn Glu Glu	Leu Pro Arg
225	230	235
Leu Leu Gln Cys Thr Met	Ala Asp Val Leu Leu Glu Glu	Val Gln Gln
245	250	255
Ser Thr Asn Asp Thr Val	Phe Met Ala Asn Thr Phe	Leu Val Ser His
260	265	270
Arg Lys Leu Gly Met Ala	Gly Gln Lys Leu Gly Ser Ser	Ala Leu Leu
275	280	285
Cys Tyr Ile Arg Pro Asp	Thr Ala Asp Pro Ala Ser Ser	Phe Ser Leu
290	295	300
Thr Val Ala Asn Val Gly	Thr Cys Gln Ala Val Leu Cys	Arg Gly Gly
305	310	315
Lys Pro Val Pro Leu Ser	Lys Val Phe Ser Leu Glu Gln	Asp Pro Glu
325	330	335
Glu Ala Gln Arg Val Lys	Asp Gln Lys Ala Ile Ile Thr	Glu Asp Asn
340	345	350
Lys Val Asn Gly Val Thr	Cys Cys Thr Arg Met Leu Gly	Cys Thr Tyr
355	360	365
Leu Tyr Pro Trp Ile Leu	Pro Lys Pro His Ile Ser Ser	Thr Pro Leu
370	375	380
Thr Ile Gln Asp Glu Leu	Leu Ile Leu Gly Asn Lys Ala	Leu Trp Glu
385	390	395
His Leu Ser Tyr Thr Glu	Ala Val Asn Ala Val Arg His	Val Gln Asp
405	410	415
Pro Leu Ala Ala Ala Lys	Lys Leu Cys Thr Leu Ala Gln	Ser Tyr Gly
420	425	430
Cys Gln Asp Ser Val Gly	Ala Met Val Val Tyr Leu Asn	Ile Gly Glu
435	440	445
Glu Gly Cys Thr Cys Glu	Met Asn Gly Leu Thr Leu Pro	Gly Pro Val
450	455	460
Gly Phe Ala Ser Thr Thr	Thr Thr Ile Lys Asp Ala Pro	Lys Pro Ala Thr
465	470	475
Pro Ser Ser Ser Ser Gly	Ile Ala Ser Glu Phe Ser Ser	Glu Met Ser
485	490	495
Thr Ser Glu Val Ser Ser	Glu Val Gly Ser Thr Ala Ser	Asp Glu His
500	505	510
Asn Ala Gly Gly Leu Asp	Thr Ala Leu Leu Pro Arg Pro	Glu Arg Arg
515	520	525
Cys Ser Leu His Pro Thr	Pro Thr Ser Gly Leu Phe Gln	Arg Gln Pro
530	535	540
Ser Ser Ala Thr Phe Ser	Ser Ser Asn Gln Ser Asp Asn	Gly Leu Asp Ser
545	550	555
Asp Asp Asp Gln Pro Val	Glu Gly Val Ile Thr Asn Gly	Ser Lys Val
565	570	575
Glu Val Glu Val Asp Ile	His Cys Cys Arg Gly Arg Asp	Leu Glu Asn
580	585	590
Ser Pro Pro Leu Ile Glu	Ser Ser Thr Leu Cys Ser Glu	Glu Glu His
595	600	605
Ala Arg Gly Ser Cys Phe	Gly Ile Arg Arg Gln Asn Ser	Val Asn Ser
610	615	620
Gly Met Leu Leu Pro Met	Ser Lys Asp Arg Met Glu Leu	Gln Lys Ser

```

625          630          635          640
Pro Ser Thr Ser Cys Leu Tyr Gly Lys Lys Leu Ser Asn Gly Ser Ile
          645          650          655
Val Pro Leu Glu Asp Ser Leu Asn Leu Ile Glu Val Ala Thr Glu Val
          660          665          670
Pro Lys Arg Lys Thr Gly Tyr Phe Ala Ala Pro Thr Gln Met Glu Pro
          675          680          685
Glu Asp Gln Phe Val Val Pro His Asp Leu Glu Glu Glu Val Lys Glu
          690          695          700
Gln Met Lys Gln His Gln Asp Ser Arg Leu Glu Pro Glu Pro His Glu
705          710          715          720
Glu Asp Arg Thr Glu Pro Pro Glu Glu Phe Asp Thr Ala Leu
          725          730

```

<210> 901  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

```

<400> 901
tcattgatcca cctgcctcgg cctcccaaag tgctgggatt acatacagat ggcaaacttc
60
atttcctttt tctcttaatg caacaaggte atcccaagat caggcttcct tcagttttctg
120
tggttaagtag tgatggacac ttatggagtt ttcagagact tatgcattgg gtaacaaggc
180
actgcaagag accccagata gcacagcatc atctcacatt tacaccacat cacatcaaca
240
tcgatgctag gaggtctaaa gctgatgccca ccttcagagc tgcaagtatc caaaagactc
300
cactcatga
309

```

<210> 902  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

```

<400> 902
Met Ile His Leu Pro Arg Pro Pro Lys Val Leu Gly Leu His Thr Asp
1          5          10          15
Gly Lys Leu His Phe Leu Phe Leu Leu Met Gln Gln Gly His Pro Lys
20          25          30
Ile Arg Leu Pro Ser Val Ser Val Val Ser Ser Asp Gly His Leu Trp
35          40          45
Ser Phe Gln Arg Leu Met His Trp Val Thr Arg His Cys Lys Arg Pro
50          55          60
Gln Ile Ala Gln His His Leu Thr Phe Thr Pro His His Ile Asn Ile
65          70          75          80
Asp Ala Arg Arg Ser Lys Ala Asp Ala Thr Phe Arg Ala Ala Ser Ile
85          90          95
Gln Lys Thr Pro Leu Met
100

```

<210> 903  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 903  
 agatcttagt gaaaactgga agcaggaaga ataagttagt catggaagcc actttggctc  
 60  
 taagggtctt gatggcctca tgggttgaca ggaacagaag acaaagacta gggcccaccc  
 120  
 aagggtgtgaa gtctaataagg aaaccttttc tccataaggc tacaatgggt ctaccaaaaa  
 180  
 taaaaccatg ccaccccagg gactgcagcc caattttata tcaccatgag gtccaaaaaa  
 240  
 ttccaagctg tgaatttagt ttcaaaggc cttgggtctcc agtatcccta gccatgtggc  
 300  
 aaaaacaaac aattctcttt ggaggataca tctttatctt aagacttgn  
 349

<210> 904  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 904  
 Met Glu Ala Thr Leu Ala Leu Arg Ala Leu Met Ala Ser Trp Val Asp  
 1 5 10 15  
 Arg Asn Arg Arg Gln Arg Leu Gly Pro Thr Gln Gly Val Lys Ser Asn  
 20 25 30  
 Arg Lys Pro Phe Leu His Lys Ala Thr Met Gly Leu Pro Lys Ile Lys  
 35 40 45  
 Pro Cys His Pro Arg Asp Cys Ser Pro Ile Leu Tyr His His Glu Val  
 50 55 60  
 Gln Lys Ile Pro Ser Cys Glu Phe Ser Phe Lys Trp Pro Trp Ser Pro  
 65 70 75 80  
 Val Ser Leu Ala Met Trp Gln Lys Gln Thr Ile Leu Phe Gly Gly Tyr  
 85 90 95  
 Ile Phe Ile Leu Arg Leu  
 100

<210> 905  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 905  
 nntccggaac cggtggtgtg gaccgagcac gattctcacc tagctcacc ggatcagcgt  
 60  
 ctcaacgaag acatcattat cgcggtgac cgggcagacg cggtgattag cgtatcccag  
 120  
 gggctctgcg acaggctggc tggacatggc gtgacctcaa cggtggttcc caacatcggt  
 180  
 gacgtcgagc tgtttgaccg tcctgatcga cgacatgagg ggacgatcgt cgtcagcgtc  
 240

gccaccctca acccgggaaa gggcatgatt gagttagctc aggctgttga gcgtcttccc  
 300  
 gaggttcagt tgagaatcat cggagatgga ccgcagcggc accaactgga ggccattgcc  
 360  
 gctgataatc cacgcgt  
 377

<210> 906  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 906  
 Xaa Pro Glu Pro Val Val Trp Thr Glu His Asp Ser His Leu Ala His  
 1 5 10 15  
 Pro Asp Gln Arg Leu Asn Glu Asp Ile Ile Ile Ala Gly Asp Arg Ala  
 20 25 30  
 Asp Ala Val Ile Ser Val Ser Gln Gly Leu Cys Asp Arg Leu Ala Gly  
 35 40 45  
 His Gly Val Thr Ser Thr Val Val Pro Asn Ile Val Asp Val Glu Leu  
 50 55 60  
 Phe Asp Arg Pro Asp Arg Arg His Glu Gly Thr Ile Val Val Ser Val  
 65 70 75 80  
 Ala Thr Leu Asn Pro Gly Lys Gly Met Ile Glu Leu Ala Gln Ala Val  
 85 90 95  
 Glu Arg Leu Pro Glu Val Gln Leu Arg Ile Ile Gly Asp Gly Pro Gln  
 100 105 110  
 Arg His Gln Leu Glu Ala Ile Ala Ala Asp Asn Pro Arg  
 115 120 125

<210> 907  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 907  
 acgcgtagga tgatgaagtc cgtcactgga tcgttcttgg gtggcaaccg ggaagtcggg  
 60  
 gaccagttct tcaacggcga gggtcaactg aaccttgtgc cgcagggtac attcgccgag  
 120  
 cgcattcgtg ccggcgctgc tggatttga gcattcttca cgctactgg ctatggtaca  
 180  
 gccgtgcaga agggtagct tgttcttaag tatgaaaaga aggacggtaa ggctgtgcc  
 240  
 gtcattgacgt ccaagccgcg tgaagtgcgc tcgtttgacg gccgtgacta tataatagaa  
 300  
 gaggttatta aggatgaata ggatatggtg aa  
 332

<210> 908  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 908

Thr Arg Arg Met Met Lys Ser Val Thr Gly Ser Phe Leu Gly Gly Asn  
 1 5 10 15  
 Arg Glu Val Gly Asp Gln Phe Phe Asn Gly Glu Val Gln Leu Asn Leu  
 20 25 30  
 Val Pro Gln Gly Thr Phe Ala Glu Arg Ile Arg Ala Gly Ala Ala Gly  
 35 40 45  
 Ile Ala Ala Phe Phe Thr Pro Thr Gly Tyr Gly Thr Ala Val Gln Lys  
 50 55 60  
 Gly Glu Leu Val Leu Lys Tyr Glu Lys Lys Asp Gly Lys Ala Val Pro  
 65 70 75 80  
 Val Met Thr Ser Lys Pro Arg Glu Val Arg Ser Phe Asp Gly Arg Asp  
 85 90 95  
 Tyr Ile Ile Glu Glu Val Ile Lys Asp Glu  
 100 105

&lt;210&gt; 909

&lt;211&gt; 318

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 909

acgcgtcggg catggcagct gtacagatct atcgcgtcag cagggcctac gcacacatga  
 60  
 tgccgcaggg gcaccgacgc tgcgccatc aaaagagccg cctcgcgccc gcagcgcctc  
 120  
 ccagggaagg cgactcacgt ggctcgacac gcgcgcgcga gtcgcgtggg tgtgtcacgc  
 180  
 cccttttttt cccaccccaa caccgaaccg gcgggccatg gctgaggatt cgcaccccat  
 240  
 tcgctccggc ttgcgcatgc tcaagcgctc ctggagctcg aatgagaatg taccgcccgc  
 300  
 acaaagctcg ccgccggc  
 318

&lt;210&gt; 910

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 910

Met Ala Ala Val Gln Ile Tyr Arg Val Ser Arg Ala Tyr Ala His Met  
 1 5 10 15  
 Met Pro Gln Gly His Arg Arg Cys Arg His Gln Lys Ser Arg Leu Ala  
 20 25 30  
 Pro Ala Ala Pro Pro Arg Asp Gly Asp Ser Arg Gly Ser Thr Arg Ala  
 35 40 45  
 Arg Glu Ser Arg Gly Cys Val Thr Pro Leu Phe Phe Pro Pro Gln His  
 50 55 60  
 Arg Thr Gly Gly Pro Trp Leu Arg Ile Arg Thr Pro Phe Ala Pro Ala  
 65 70 75 80  
 Cys Ala Cys Ser Ser Ala Pro Gly Ala Arg Met Arg Met Tyr Arg Arg  
 85 90 95  
 His Lys Ala Arg Arg Arg

100

<210> 911  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<400> 911  
 acgcgtgtgc agcactctcc acaagctggc cccaatcact tttgcatcaa attggtacag  
 60  
 caaccttatg aggctggcct tgggggaacc ctgttttagg gatgagctga acttaccggg  
 120  
 aggctgcatg cgaggttggt gtgaaatgca tatctggctt tgtagctggt cggctcacct  
 180  
 ctggggttgg cacaggggcg ggggttctgc catggctaga atgcgctaag ggggtgaaac  
 240  
 gaagcctgct gggcccgga accacagagc agcctggcct ttgaaggaga ccctgtggca  
 300  
 cccctgccc accccaagt ccagccattt cacttcctg gagatggtgc aaagcaagaa  
 360  
 aaaaaaaaa atccagtgtt ctcaggtcag ccttcacca gccaggattc atcgtctgat  
 420  
 ctgtttgggg agagagcatg gagtgggtga gatgggttgg gcccagtggt tttctgatta  
 480  
 actcgagtt cacctgaaac attttg  
 506

<210> 912  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 912  
 Met Phe Gln Val Asn Cys Glu Leu Ile Arg Lys His Trp Gly Pro Thr  
 1 5 10 15  
 His Leu His His Ser Met Leu Ser Pro Gln Thr Asp Gln Thr Met Asn  
 20 25 30  
 Pro Gly Trp Trp Lys Ala Asp Leu Arg Thr Leu Asp Phe Phe Phe  
 35 40 45  
 Leu Ala Leu His His Leu Gln Gly Ser Glu Met Ala Gly Leu Gly Gly  
 50 55 60  
 Gly Gln Gly Val Pro Gln Gly Leu Leu Gln Arg Pro Gly Cys Ser Val  
 65 70 75 80  
 Val Pro Gly Pro Ser Arg Leu Arg Phe His Pro Leu Ala His Ser Ser  
 85 90 95  
 His Gly Arg Thr Pro Ala Pro Val Pro Thr Pro Glu Val Ser Arg Pro  
 100 105 110  
 Ala Thr Lys Pro Asp Met His Phe Thr Pro Thr Ser His Ala Ala Ser  
 115 120 125  
 Arg

<210> 913  
 <211> 339

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 913

cgcttcatgg cgtgggttcag gcgtacgggt cgggctactg gtgactaccg tggcacgaaa  
 60  
 tttttcggtc gcgagaacgg taaaaccctc gcaacctcga tgttcatggg ttgtgtcgcc  
 120  
 ctggggcgcca cggacctgct tttcgccctc gactcgattc cggcgctccta tggtttcacc  
 180  
 aacgaggggt accttatact taccgctaac gtctttgctc tcatggggtt gcgtcagttg  
 240  
 tatttcctta ttggaagcct gttggaacgt ctgggtgtact tgtcgtctggg actgggtcgtg  
 300  
 attttgggct ttatcgccct caagctcatt ggccacgcg  
 339

&lt;210&gt; 914

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 914

Arg	Phe	Met	Ala	Trp	Phe	Arg	Arg	Thr	Val	Pro	Ala	Thr	Gly	Asp	Tyr
1			5						10					15	
Arg	Gly	Thr	Lys	Phe	Phe	Val	Arg	Glu	Asn	Gly	Lys	Thr	Leu	Ala	Thr
			20					25					30		
Ser	Met	Phe	Met	Val	Cys	Val	Ala	Leu	Gly	Ala	Thr	Asp	Leu	Leu	Phe
			35				40					45			
Ala	Leu	Asp	Ser	Ile	Pro	Ala	Ser	Tyr	Gly	Phe	Thr	Asn	Glu	Gly	Tyr
	50					55					60				
Leu	Ile	Leu	Thr	Ala	Asn	Val	Phe	Ala	Leu	Met	Gly	Leu	Arg	Gln	Leu
65					70				75					80	
Tyr	Phe	Leu	Ile	Gly	Ser	Leu	Leu	Glu	Arg	Leu	Val	Tyr	Leu	Ser	Leu
			85					90					95		
Gly	Leu	Val	Val	Ile	Leu	Gly	Phe	Ile	Ala	Leu	Lys	Leu	Ile	Gly	His
			100					105					110		

Ala

&lt;210&gt; 915

&lt;211&gt; 663

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 915

nnggtacctg tcaatcagta tgtaaacctc actttatgtc gtggttatcc acttctctgat  
 60  
 gacagtgaag atcctgttgt ggacattgtt gctgctaccc ctgtcatcaa tggacagtca  
 120  
 ttaaccaagg gagagacttg catgaatcct caggatttta agccaggagc aatgggtctg  
 180  
 gacgagaatg gaaaatcggg acacactttg actgggtgatg gtctcaatgg accatcagat  
 240

gcaagtgagc agagagtatc catggcatcg tcaggcagct cccagcctga actagtgact  
 300  
 atccctttga ttaagggccc taaagggttt gggtttgcaa ttgctgacag ccctactgga  
 360  
 cagaaggtga aaatgatact ggatagtcag tgggtgtcaag gccttcagaa aggagatata  
 420  
 attaaggaaa tataccatca aaatgtgcag aatttaacac atctccaagt ggtagagggtg  
 480  
 ctaaagcagt ttccagtagg tgctgatgta ccattgctta tcttaagagg aggtccccct  
 540  
 tcaccaacca aaagtgccaa aatgaaaaca gataaaaagg aaaatgcagg aagtttggag  
 600  
 gccataaatg agcctattcc tcagcctatg ccttttccac cgagcattat caggtcagga  
 660  
 tcc  
 663

&lt;210&gt; 916

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 916

Xaa	Val	Pro	Val	Asn	Gln	Tyr	Val	Asn	Leu	Thr	Leu	Cys	Arg	Gly	Tyr
1				5					10					15	
Pro	Leu	Pro	Asp	Asp	Ser	Glu	Asp	Pro	Val	Val	Asp	Ile	Val	Ala	Ala
			20					25					30		
Thr	Pro	Val	Ile	Asn	Gly	Gln	Ser	Leu	Thr	Lys	Gly	Glu	Thr	Cys	Met
			35				40					45			
Asn	Pro	Gln	Asp	Phe	Lys	Pro	Gly	Ala	Met	Val	Leu	Glu	Gln	Asn	Gly
			50				55				60				
Lys	Ser	Gly	His	Thr	Leu	Thr	Gly	Asp	Gly	Leu	Asn	Gly	Pro	Ser	Asp
65					70					75				80	
Ala	Ser	Glu	Gln	Arg	Val	Ser	Met	Ala	Ser	Ser	Gly	Ser	Ser	Gln	Pro
				85					90					95	
Glu	Leu	Val	Thr	Ile	Pro	Leu	Ile	Lys	Gly	Pro	Lys	Gly	Phe	Gly	Phe
			100					105					110		
Ala	Ile	Ala	Asp	Ser	Pro	Thr	Gly	Gln	Lys	Val	Lys	Met	Ile	Leu	Asp
			115				120					125			
Ser	Gln	Trp	Cys	Gln	Gly	Leu	Gln	Lys	Gly	Asp	Ile	Ile	Lys	Glu	Ile
			130				135				140				
Tyr	His	Gln	Asn	Val	Gln	Asn	Leu	Thr	His	Leu	Gln	Val	Val	Glu	Val
145					150					155				160	
Leu	Lys	Gln	Phe	Pro	Val	Gly	Ala	Asp	Val	Pro	Leu	Leu	Ile	Leu	Arg
			165					170						175	
Gly	Gly	Pro	Pro	Ser	Pro	Thr	Lys	Ser	Ala	Lys	Met	Lys	Thr	Asp	Lys
			180					185					190		
Lys	Glu	Asn	Ala	Gly	Ser	Leu	Glu	Ala	Ile	Asn	Glu	Pro	Ile	Pro	Gln
		195					200					205			
Pro	Met	Pro	Phe	Pro	Pro	Ser	Ile	Ile	Arg	Ser	Gly	Ser			
		210				215					220				

&lt;210&gt; 917

&lt;211&gt; 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 917

atcgtggacc agaagtcccc tgagtgtggc ttctacggcc tttacgacaa gatcctgctt  
 60  
 ttcaaactatg accccacgtc ggccaacctc ctgcagctgg tgcgctcgtc cggagacatc  
 120  
 caggagggcg acctggtgga ggtggtgctg tcggcctcgg ccaccttcga ggacttccag  
 180  
 atccgcccgc acgcccctcac ggtgcactcc tatcgggcgc ctgccttctg tgatcactgc  
 240  
 ggggagatgc tcttcggcct agtgcgccag ggcctcaagt gcgatggctg cgggctgaac  
 300  
 taccacaagc gctgtgcctt cagcatcccc aacaactgta gtggggcccg caaacggcgc  
 360  
 ctgtcatcca cgtctctggc cagtggccac tcggtgcgcc tcggcacctc cgagtccctg  
 420  
 ccctgcacgg ctgaagagga gccgtagcac caccgaactc ctgcctcgcc gtccccgtca  
 480  
 tcctcttctt cctcttctgc ctcatcgat acggggccgc ccattgagct ggacaagatg  
 540  
 ctgctctcca aggtcaaggt gccgcacacc ttcctcatcc acagctatac acggcccacc  
 600  
 gtttgccagg cttgc  
 615

&lt;210&gt; 918

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 918

Ile Val Asp Gln Lys Phe Pro Glu Cys Gly Phe Tyr Gly Leu Tyr Asp  
 1 5 10 15  
 Lys Ile Leu Leu Phe Lys His Asp Pro Thr Ser Ala Asn Leu Leu Gln  
 20 25 30  
 Leu Val Arg Ser Ser Gly Asp Ile Gln Glu Gly Asp Leu Val Glu Val  
 35 40 45  
 Val Leu Ser Ala Ser Ala Thr Phe Glu Asp Phe Gln Ile Arg Pro His  
 50 55 60  
 Ala Leu Thr Val His Ser Tyr Arg Ala Pro Ala Phe Cys Asp His Cys  
 65 70 75 80  
 Gly Glu Met Leu Phe Gly Leu Val Arg Gln Gly Leu Lys Cys Asp Gly  
 85 90 95  
 Cys Gly Leu Asn Tyr His Lys Arg Cys Ala Phe Ser Ile Pro Asn Asn  
 100 105 110  
 Cys Ser Gly Ala Arg Lys Arg Arg Leu Ser Ser Thr Ser Leu Ala Ser  
 115 120 125  
 Gly His Ser Val Arg Leu Gly Thr Ser Glu Ser Leu Pro Cys Thr Ala  
 130 135 140  
 Glu Glu Glu Pro  
 145

<210> 919  
 <211> 294  
 <212> DNA  
 <213> Homo sapiens

<400> 919  
 accggtatgc gtccgctggc tgtgctcggc gacaacatca ccaccgacca tctatcgccg  
 60  
 acaaatgcga tcctgctcga tagcgcagcg ggtgagtacc tcgccaagat gggcccgccg  
 120  
 gaagaagact tcatttcgaa cgcgacccat cgtggcgatc acctgaccgc acagcgcgcc  
 180  
 accttcgccca acccgacctt gctcaacgag atggccgtag tcgatgggtga agtgaagaaa  
 240  
 ggctcgcttg cccgcgtgga accggaaggc catgtgatgc gcatgtggga agcc  
 294

<210> 920  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 920  
 Thr Gly Met Arg Pro Leu Ala Val Leu Gly Asp Asn Ile Thr Thr Asp  
 1 5 10 15  
 His Leu Ser Pro Thr Asn Ala Ile Leu Leu Asp Ser Ala Ala Gly Glu  
 20 25 30  
 Tyr Leu Ala Lys Met Gly Pro Pro Glu Glu Asp Phe Ile Ser Asn Ala  
 35 40 45  
 Thr His Arg Gly Asp His Leu Thr Ala Gln Arg Ala Thr Phe Ala Asn  
 50 55 60  
 Pro Thr Leu Leu Asn Glu Met Ala Val Val Asp Gly Glu Val Lys Lys  
 65 70 75 80  
 Gly Ser Leu Ala Arg Val Glu Pro Glu Gly His Val Met Arg Met Trp  
 85 90 95  
 Glu Ala

<210> 921  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 921  
 acgcgtttgc gcatcgcttt gaccggctctg acgatggctg agtacttccg cgatgttcag  
 60  
 aaccaggacg tgctgttggt catcgacaac atcttcgggt tctcccaggc tggttctgag  
 120  
 gtttcaacct tgctaggtcg tatgccctcg gcggtgggct accagcccaa cttggccgac  
 180  
 gagatgggccc aattgcagga gcgaatcacc tcgaccctg gtcactccat cacctcgatg  
 240  
 caggccgtct acgtccccgc tgacgattac accgaccggg ctccggcgac gaccttcgcc  
 300

cacctggatg ccaccaacgga gctttctcgt gagattgcct ctctggcct gtacccggcc

360

gtggatccgc tggcgctcg

378

<210> 922

<211> 126

<212> PRT

<213> Homo sapiens

<400> 922

Thr Arg Leu Arg Ile Ala Leu Thr Gly Leu Thr Met Ala Glu Tyr Phe

1

5

10

15

Arg Asp Val Gln Asn Gln Asp Val Leu Leu Phe Ile Asp Asn Ile Phe

20

25

30

Arg Phe Ser Gln Ala Gly Ser Glu Val Ser Thr Leu Leu Gly Arg Met

35

40

45

Pro Ser Ala Val Gly Tyr Gln Pro Asn Leu Ala Asp Glu Met Gly Gln

50

55

60

Leu Gln Glu Arg Ile Thr Ser Thr Arg Gly His Ser Ile Thr Ser Met

65

70

75

80

Gln Ala Val Tyr Val Pro Ala Asp Asp Tyr Thr Asp Pro Ala Pro Ala

85

90

95

Thr Thr Phe Ala His Leu Asp Ala Thr Thr Glu Leu Ser Arg Glu Ile

100

105

110

Ala Ser Arg Gly Leu Tyr Pro Ala Val Asp Pro Leu Ala Ser

115

120

125

<210> 923

<211> 571

<212> DNA

<213> Homo sapiens

<400> 923

accggtatcg aactgccgca agacacgggc aagcatgtcg ccgacgaaca actgcaacgc

60

ctggacaccg cgctggagca cgtgcgcgga gaaatccgca ttaccctgga gcatgcacgc

120

caacgcaaga atgtcgaaga agaagacatc ttcgccgcc accttgcgct attggaagac

180

cccacgctgc tggacgccgc cactggtgcc atcgaacacg gcagcgccgc caccacgcc

240

tggcgcgatg caatccaggc gcaatgcgcc gtgttgctgg ccctgggcaa accgctgttt

300

gccgagcgcg ccaacgacct gcgcgatctg caacagcgag tactgcgtgc gctgttgggg

360

gaagcctggc acttcgaatt gccggccggg ccgattttca ggnnggccat taacttacct

420

ccttcgcct tgttgcaact gagtgcccaa aacgccgtgg gtatttgcat ggccgaaggc

480

ggcgctacgt ctacgctgc gattttggcc cgaggcaaag gcttgccgtg cgtggtcgcg

540

ctgggcccgc aagtgtcga cgtgccccaa g

571

<210> 924  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 924  
 Thr Gly Ile Glu Leu Pro Gln Asp Thr Gly Lys His Val Ala Asp Glu  
 1 5 10 15  
 Gln Leu Gln Arg Leu Asp Thr Ala Leu Glu His Val Arg Gly Glu Ile  
 20 25 30  
 Arg Ile Thr Leu Glu His Ala Arg Gln Arg Lys Asn Val Glu Glu Glu  
 35 40 45  
 Asp Ile Phe Ala Ala His Leu Ala Leu Leu Glu Asp Pro Thr Leu Leu  
 50 55 60  
 Asp Ala Ala Thr Gly Ala Ile Glu His Gly Ser Ala Ala Thr His Ala  
 65 70 75 80  
 Trp Arg Asp Ala Ile Gln Ala Gln Cys Ala Val Leu Leu Ala Leu Gly  
 85 90 95  
 Lys Pro Leu Phe Ala Glu Arg Ala Asn Asp Leu Arg Asp Leu Gln Gln  
 100 105 110  
 Arg Val Leu Arg Ala Leu Leu Gly Glu Ala Trp His Phe Glu Leu Pro  
 115 120 125  
 Ala Gly Pro Ile Phe Arg Xaa Ala Ile Asn Leu Pro Pro Ser Ala Leu  
 130 135 140  
 Leu Gln Leu Ser Ala Gln Asn Ala Val Gly Ile Cys Met Ala Glu Gly  
 145 150 155 160  
 Gly Ala Thr Ser His Val Ala Ile Leu Ala Arg Gly Lys Gly Leu Pro  
 165 170 175  
 Cys Val Val Ala Leu Gly Ala Glu Val Leu Asp Val Pro Gln  
 180 185 190

<210> 925  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<400> 925  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatgggtgtg tgcacgtgtg cnactgtgta tgcattggtaa tgtgcacgtg tgcactgtgt  
 120  
 gtgggtgtgta tgcattggtgt gtgcacgtgt gcaactgtgtg tgtgtgtatg catgtgtgtg  
 180  
 cacgtgtgcc tgtgtgtatg catggtaatg tgcgtgtgca ctgtgtggtg tgtatgcatg  
 240  
 tgtgtgcacg tgtgcactgt gtatgcatag tgtgtgcacg tgtgcactgt gtgtggatgc  
 300  
 atggtaatgt gcacgtgtgc actgtgtgtg gtgtgtatga tgggtgtgtgc acgtgtgcac  
 360  
 ggtgtgtggt gtgtatgcat gtgtgtgcac gtgtgcactg tgtggcaggg gtgtttggtg  
 420  
 tgtgtgcatg tatgcatggt gtgtgcatac gtgtgcagca gcacctggtc ccatctccag  
 480



tgcccagcag catcacacgc actttggtgc ttataaatg catggtcagt gaggctgcca  
 540  
 gcaccaagct gtccctttac cataacacct ggaatagtca cctgtgataa gctatcacat  
 600  
 aggaaacatt tttaaaattt  
 620

<210> 926  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 926  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val Cys  
 35 40 45  
 Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Val Cys Leu  
 50 55 60  
 Cys Val Cys Met Val Met Cys Val Cys Thr Val Trp Cys Val Cys Met  
 65 70 75 80  
 Cys Val His Val Cys Thr Val Tyr Ala  
 85

<210> 927  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 927  
 gtgcacactc tggaagccac aggatggagc tcctagagat agtgaggcat gaccagaggg  
 60  
 aagaggcatt tggggctctg ttcagatcat tccaacagca aaccgggcat ggagacccca  
 120  
 tctcaggtct gtgcttctct gggggccacc cagccatcct gcccaccagc tcagaggcag  
 180  
 ggacaaagcc ctcccaagag gcagcaggca gcaagggtca gccagcgagc tggggacagg  
 240  
 caggtacaac ctggaaaccc caaaggaccc cagatggcaa tgtgacacgg cccatccacc  
 300  
 aagcacctgt aatgccggct tcccacagag gcgagccaga tcttggcact attctttaag  
 360

<210> 928  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 928  
 Met Glu Leu Leu Glu Ile Val Arg His Asp Gln Arg Glu Glu Ala Phe  
 1 5 10 15  
 Gly Val Leu Phe Arg Ser Phe Gln Gln Gln Thr Gly His Gly Asp Pro

	20		25		30										
Ile	Ser	Gly	Leu	Cys	Phe	Ser	Gly	Gly	His	Pro	Ala	Ile	Leu	Pro	Thr
	35		40		45										
Ser	Ser	Glu	Ala	Gly	Thr	Lys	Pro	Ser	Gln	Glu	Ala	Ala	Gly	Ser	Lys
	50		55		60										
Gly	Gln	Pro	Ala	Gln	Trp	Gly	Gln	Ala	Gly	Thr	Thr	Trp	Lys	Pro	Gln
65			70		75										80
Arg	Thr	Pro	Asp	Gly	Asn	Val	Thr	Arg	Pro	Ile	His	Gln	Ala	Pro	Val
			85		90										95
Met	Pro	Ala	Ser	His	Arg	Gly	Glu	Pro	Asp	Pro	Gly	Thr	Ile	Leu	
	100				105								110		

&lt;210&gt; 929

&lt;211&gt; 2340

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 929

nnctccccag ggccgagctt tccggagctc gcagagagcc tggatggatc acaggaggat  
 60  
 aagcctcggg gctcatgtgc ggagcccact ttactgata cgggaatggg ggctcacata  
 120  
 aacaacagcc ggctcaaggc caagggcggt ggccagcacg acaacgcccc gaactttggg  
 180  
 aaccagagct ttgaggagct gcgagcagcc tgtctaagaa agggggagct ctctcaggag  
 240  
 cccttattcc ctgctgaacc cagctcactg ggcttcaagg acctgggccc caactccaaa  
 300  
 aatgtgcaga acatctcctg gcagcggccc aaggatatca taaacaaccc tctattcacc  
 360  
 atggatggga tttctccaac agacatctgc caggggatcc tcggggactg ctggctgctg  
 420  
 gctgccatcg gctcccttac cacctgcccc aaactgctat accgctgggt gccagagga  
 480  
 cagagcttca agaaaaacta tgctggcatc ttccattttc agatttggca gtttggacag  
 540  
 tgggtgaacg tgggtgtaga tgaccggctg cccacaaaga atgacaagct ggtgtttgtg  
 600  
 cactcaaccg aacgcagtga gttctggagt gccctgctgg agaaggcgta tgccaagctg  
 660  
 agtgggtcct atgaagcatt gtcagggggc agtaccatgg agggccttga ggacttcaca  
 720  
 ggaggcgtgg cccagagctt ccaactccag agggcccttc agaacctgct caggctcctt  
 780  
 aggaaggccg tggagcgatc ctccctcatg gggtgctcca ttgaagtcac cagtgatagt  
 840  
 gaactggaat ccatgactga caagatgctg gtgagagggc acgcttactc tgtgactggc  
 900  
 cttcaggatg tccactacag aggcaaaatg gaaacactga ttcggggtccg gaatccctgg  
 960  
 ggccggattg agtggaatgg agcttggagt gacagtgccg gggagtggga agaggtggcc  
 1020  
 tcagacatcc agatgcagct gctgcacaag acggaggagc gggagtctct gatgtcctac  
 1080

caagatttcc tgaacaactt cacgctcctg gagatctgca acctcacgcc tgatacactc  
 1140  
 tctggggact acaagagcta ctggcacacc accttctacg agggcagctg gcgcagaggc  
 1200  
 agctccgcag ggggctgcag gaaccacctt ggacacgttct ggaccaaccc ccagtttaag  
 1260  
 atctctcttc ctgaggggga tgaccagag gatgacgcag agggcaatgt tgtggtctgc  
 1320  
 acctgcctgg tggccctaata gcagaagaac tggcgccatg cacggcagca gggagcccag  
 1380  
 ctgcagacca ttggctttgt cctctacgcg gtcccaaaag agtttcagaa cattcaggat  
 1440  
 gtccacttga agaaggaatt cttcacgaag tatcaggacc acggcttctc agagatcttc  
 1500  
 accaactcac gggaggtgag cagccaactc cggctgcctc cgggggaata tatcattatt  
 1560  
 ccctccacct ttgagccaca cagagatgct gacttctctg ttcgggtctt caccgagaag  
 1620  
 cacagcgagt catgggaatt ggatgaagtc aactatgctg agcaactcca agaggaaaag  
 1680  
 gtctctgagg atgacatgga ccaggacttc ctacatttgt ttaagatagt ggcaggagag  
 1740  
 ggcaaggaga taggggtgta tgagctccag aggctgctca acaggatggc catcaaattc  
 1800  
 aaaagcttca agaccaaggg ctttggcctg gatgcttgcc gctgcatgat caacctcatg  
 1860  
 gataaagatg gctctggcaa gctggggctt ctagagttca agatcctgtg gaaaaaactc  
 1920  
 aagaaatgga tggacatctt cagagagtgt gaccaggacc attcaggcac cttgaactcc  
 1980  
 tatgagatgc gcctgggttat tgagaaagca ggcatcaagc tgaacaacaa ggtaatgcag  
 2040  
 gtcttggtgg ccaggatatgc agatgatggc ctgatcatag actttgacag cttcatcagc  
 2100  
 tgtttcctga ggctaaagac catgttcaca ttctttctaa ccatggaccc caagaatact  
 2160  
 ggccatattt gcttgagcct ggaacagtgg ctgcagatga ccatgtgggg atagaggcgc  
 2220  
 tgtaggagcc tggatcatct taccagcagc agcagcagcg aggttctagc ccaggagggg  
 2280  
 ggggtgcttc ttgtagccct cagctctcca gtctctgctg atgaaatggg atccagggtg  
 2340

&lt;210&gt; 930

&lt;211&gt; 702

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 930

Met	Val	Ala	His	Ile	Asn	Asn	Ser	Arg	Leu	Lys	Ala	Lys	Gly	Val	Gly
1				5				10					15		
Gln	His	Asp	Asn	Ala	Gln	Asn	Phe	Gly	Asn	Gln	Ser	Phe	Glu	Glu	Leu
			20					25					30		
Arg	Ala	Ala	Cys	Leu	Arg	Lys	Gly	Glu	Leu	Phe	Glu	Asp	Pro	Leu	Phe

35 40 45  
 Pro Ala Glu Pro Ser Ser Leu Gly Phe Lys Asp Leu Gly Pro Asn Ser  
 50 55 60  
 Lys Asn Val Gln Asn Ile Ser Trp Gln Arg Pro Lys Asp Ile Ile Asn  
 65 70 75 80  
 Asn Pro Leu Phe Ile Met Asp Gly Ile Ser Pro Thr Asp Ile Cys Gln  
 85 90 95  
 Gly Ile Leu Gly Asp Cys Trp Leu Leu Ala Ala Ile Gly Ser Leu Thr  
 100 105 110  
 Thr Cys Pro Lys Leu Leu Tyr Arg Val Val Pro Arg Gly Gln Ser Phe  
 115 120 125  
 Lys Lys Asn Tyr Ala Gly Ile Phe His Phe Gln Ile Trp Gln Phe Gly  
 130 135 140  
 Gln Trp Val Asn Val Val Val Asp Asp Arg Leu Pro Thr Lys Asn Asp  
 145 150 155 160  
 Lys Leu Val Phe Val His Ser Thr Glu Arg Ser Glu Phe Trp Ser Ala  
 165 170 175  
 Leu Leu Glu Lys Ala Tyr Ala Lys Leu Ser Gly Ser Tyr Glu Ala Leu  
 180 185 190  
 Ser Gly Gly Ser Thr Met Glu Gly Leu Glu Asp Phe Thr Gly Gly Val  
 195 200 205  
 Ala Gln Ser Phe Gln Leu Gln Arg Pro Pro Gln Asn Leu Leu Arg Leu  
 210 215 220  
 Leu Arg Lys Ala Val Glu Arg Ser Ser Leu Met Gly Cys Ser Ile Glu  
 225 230 235 240  
 Val Thr Ser Asp Ser Glu Leu Glu Ser Met Thr Asp Lys Met Leu Val  
 245 250 255  
 Arg Gly His Ala Tyr Ser Val Thr Gly Leu Gln Asp Val His Tyr Arg  
 260 265 270  
 Gly Lys Met Glu Thr Leu Ile Arg Val Arg Asn Pro Trp Gly Arg Ile  
 275 280 285  
 Glu Trp Asn Gly Ala Trp Ser Asp Ser Ala Arg Glu Trp Glu Glu Val  
 290 295 300  
 Ala Ser Asp Ile Gln Met Gln Leu Leu His Lys Thr Glu Asp Gly Glu  
 305 310 315 320  
 Phe Trp Met Ser Tyr Gln Asp Phe Leu Asn Asn Phe Thr Leu Leu Glu  
 325 330 335  
 Ile Cys Asn Leu Thr Pro Asp Thr Leu Ser Gly Asp Tyr Lys Ser Tyr  
 340 345 350  
 Trp His Thr Thr Phe Tyr Glu Gly Ser Trp Arg Arg Gly Ser Ser Ala  
 355 360 365  
 Gly Gly Cys Arg Asn His Pro Gly Thr Phe Trp Thr Asn Pro Gln Phe  
 370 375 380  
 Lys Ile Ser Leu Pro Glu Gly Asp Asp Pro Glu Asp Asp Ala Glu Gly  
 385 390 395 400  
 Asn Val Val Val Cys Thr Cys Leu Val Ala Leu Met Gln Lys Asn Trp  
 405 410 415  
 Arg His Ala Arg Gln Gln Gly Ala Gln Leu Gln Thr Ile Gly Phe Val  
 420 425 430  
 Leu Tyr Ala Val Pro Lys Glu Phe Gln Asn Ile Gln Asp Val His Leu  
 435 440 445  
 Lys Lys Glu Phe Phe Thr Lys Tyr Gln Asp His Gly Phe Ser Glu Ile  
 450 455 460  
 Phe Thr Asn Ser Arg Glu Val Ser Ser Gln Leu Arg Leu Pro Pro Gly

```

465          470          475          480
Glu Tyr Ile Ile Ile Pro Ser Thr Phe Glu Pro His Arg Asp Ala Asp
          485          490          495
Phe Leu Leu Arg Val Phe Thr Glu Lys His Ser Glu Ser Trp Glu Leu
          500          505          510
Asp Glu Val Asn Tyr Ala Glu Gln Leu Gln Glu Glu Lys Val Ser Glu
          515          520          525
Asp Asp Met Asp Gln Asp Phe Leu His Leu Phe Lys Ile Val Ala Gly
          530          535          540
Glu Gly Lys Glu Ile Gly Val Tyr Glu Leu Gln Arg Leu Leu Asn Arg
545          550          555          560
Met Ala Ile Lys Phe Lys Ser Phe Lys Thr Lys Gly Phe Gly Leu Asp
          565          570          575
Ala Cys Arg Cys Met Ile Asn Leu Met Asp Lys Asp Gly Ser Gly Lys
          580          585          590
Leu Gly Leu Leu Glu Phe Lys Ile Leu Trp Lys Lys Leu Lys Lys Trp
          595          600          605
Met Asp Ile Phe Arg Glu Cys Asp Gln Asp His Ser Gly Thr Leu Asn
          610          615          620
Ser Tyr Glu Met Arg Leu Val Ile Glu Lys Ala Gly Ile Lys Leu Asn
625          630          635          640
Asn Lys Val Met Gln Val Leu Val Ala Arg Tyr Ala Asp Asp Gly Leu
          645          650          655
Ile Ile Asp Phe Asp Ser Phe Ile Ser Cys Phe Leu Arg Leu Lys Thr
          660          665          670
Met Phe Thr Phe Phe Leu Thr Met Asp Pro Lys Asn Thr Gly His Ile
          675          680          685
Cys Leu Ser Leu Glu Gln Trp Leu Gln Met Thr Met Trp Gly
          690          695          700

```

<210> 931  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

```

<400> 931
tcgcgaaggg agcctgacat gggccagaaa atcaatcccc atgggtttccg tctcgggtgtg
60
acgaccgatc acaagacccg ctggtacgcc gagaagcagt acgccgagct cgtgggtgag
120
gatgtcaaga tccgagagtg gctccacaag aatctggagc gcgccggtct ttcgtccatc
180
gagatcgagc gtcgctccga gcgcgtgacc attttccttt acgccgctcg cccgggcatc
240
gttatcgggc gcaatggccg ggaggccgag cgcgtgcgtn ntgagctcga aaagctt
297

```

<210> 932  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

```

<400> 932
Met Gly Gln Lys Ile Asn Pro His Gly Phe Arg Leu Gly Val Thr Thr

```

```

      1           5           10           15
Asp His Lys Thr Arg Trp Tyr Ala Glu Lys Gln Tyr Ala Glu Leu Val
      20           25           30
Gly Glu Asp Val Lys Ile Arg Glu Trp Leu His Lys Asn Leu Glu Arg
      35           40           45
Ala Gly Leu Ser Ser Ile Glu Ile Glu Arg Arg Ser Glu Arg Val Thr
      50           55           60
Ile Phe Leu Tyr Ala Ala Arg Pro Gly Ile Val Ile Gly Arg Asn Gly
      65           70           75           80
Arg Glu Ala Glu Arg Val Arg Xaa Glu Leu Glu Lys Leu
      85           90

```

&lt;210&gt; 933

&lt;211&gt; 305

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 933

```

nnacgcgtcg ccaagctggt gatggccgaa tacaaggggc tcaacgtcat cgtcaaaacc
60
tccgccgatac cggcaagcca agccaatgcc gtgcaggatac tggcgggggc aggcatacgac
120
gcgctggcca tcctgccgac cgaccggat cagctgggtt cggcgatcca gcaggtcaag
180
gacgacggca agttcgtggc gctggtcgac cgtgcgcctt ccgtcaacga caacacgac
240
cgcgatctct acgtggccgg caacaaccgg gcgctcgggc aagtggcggg caaatcatg
300
ggcga
305

```

&lt;210&gt; 934

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 934

```

Xaa Arg Val Ala Lys Leu Leu Met Ala Glu Tyr Lys Gly Leu Asn Val
1           5           10           15
Ile Val Lys Thr Ser Ala Asp Pro Ala Ser Gln Ala Asn Ala Val Gln
      20           25           30
Asp Leu Ala Gly Ala Gly Ile Asp Ala Leu Ala Ile Leu Pro Thr Asp
      35           40           45
Pro Asp Gln Leu Val Ser Ala Ile Gln Gln Val Lys Asp Asp Gly Lys
      50           55           60
Phe Val Ala Leu Val Asp Arg Ala Pro Ser Val Asn Asp Asn Thr Ile
      65           70           75           80
Arg Asp Leu Tyr Val Ala Gly Asn Asn Pro Ala Leu Gly Glu Val Ala
      85           90           95
Gly Lys Phe Met Gly
      100

```

&lt;210&gt; 935

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 935

acgcgtgaag ggctgatgag tgctatgaaa aagccagggg cccgaggaca ctgggggtgga  
 60  
 caggctcccc tggggaagtc ctcttagaac tgagggatca acactggagg agactgcaag  
 120  
 gggtagcgga taaatgttcc tggatgaagga aacagcaggg gcaaaggccc tgcagcagaa  
 180  
 aggagcgagg ccctttggag taacagaaag accatgggtga caggagctca gaaagaccac  
 240  
 tgggtgttaag actataagcc agtggaggcc agattgggga atgggatggg aggggtgctt  
 300  
 gaagaccatg gtgaggctct cttggtcttt act  
 333

&lt;210&gt; 936

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 936

Met Val Phe Lys His Pro Ser His Pro Ile Pro Gln Ser Gly Leu His  
 1 5 10 15  
 Trp Leu Ile Val Leu Thr Pro Val Val Phe Leu Ser Ser Cys His His  
 20 25 30  
 Gly Leu Ser Val Thr Pro Lys Gly Leu Ala Pro Phe Cys Cys Arg Ala  
 35 40 45  
 Phe Ala Pro Ala Val Ser Phe Thr Arg Asn Ile Tyr Pro Val Pro Leu  
 50 55 60  
 Ala Val Ser Ser Ser Val Asp Pro Ser Val Leu Arg Gly Leu Pro Gln  
 65 70 75 80  
 Gly Ser Leu Ser Thr Pro Val Ser Ser Gly Pro Trp Leu Phe His Ser  
 85 90 95  
 Thr His Gln Pro Phe Thr Arg  
 100

&lt;210&gt; 937

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 937

nnnttatctg cggagggggg ggccaccctg cccacactca tgctgcaggc ctccaccgac  
 60  
 ccggcgggacg acgagctcaa ggatctgttg acggccgacc tcatggacca gcacaacctc  
 120  
 gaccgtgccc tggcagggtt gcgtgccagt cacgtcatcg acgaagctcg cgccgagggtg  
 180  
 cagcggcggtg ccgatctcgc ccgtggccat ctgcgccatcc tccccgcagg cgatgcccgt  
 240  
 acggcggttg agaccctgtg cgacgaggtg ggttcccggg cggcctgaac cccgaccctg  
 300

ccagnctgcg tcccatctcc tggccgggac cgctccagcg tctgctctct gacagctcat  
 360  
 cgttcttccg acaccaagga gtttctcgtg gcccgtcacg tcgatctcat cggcattggt  
 420  
 cccggcaacc cggactggat caccctgggt gccgtcaagg ccan  
 464

<210> 938  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 938  
 Xaa Leu Ser Ala Glu Gly Val Ala Thr Leu Pro Thr Leu Met Leu Gln  
 1 5 10 15  
 Ala Ser Thr Asp Pro Ala Asp Asp Glu Leu Lys Asp Leu Leu Thr Ala  
 20 25 30  
 Asp Leu Met Asp Gln His Asn Leu Asp Arg Ala Leu Ala Gly Leu Arg  
 35 40 45  
 Ala Ser His Val Ile Asp Glu Ala Arg Ala Glu Val Gln Arg Arg Ala  
 50 55 60  
 Asp Leu Ala Arg Gly His Leu Ala Ile Leu Pro Ala Gly Asp Ala Arg  
 65 70 75 80  
 Thr Ala Leu Glu Thr Leu Cys Asp Glu Val Gly Ser Arg Ala Ala  
 85 90 95

<210> 939  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 939  
 ntgactatcc tcgaccccgga tggctcaggag acgactccag gaagtgtcat cgaagggcctt  
 60  
 ggactgctgc cggctcgaggt ggacttcgcc gccacgaaga cccttgccctt gtcgcacggg  
 120  
 acatggcggg ggatcgaggt tgggtggctat gaaatccatc acgggctgtc gtcgttcgct  
 180  
 gaggcgctg aagccttcct cgacggcgta cacgtcggtc cggatatggg gacgatgtgg  
 240  
 cacggggcat tcgagcacga cgaattccgt cgcacgtggc tggctgacgc ggcccgtcac  
 300  
 gctggatcat cctggcgctc gactccgac gagctggggt atcaggctcg acgcgaggcg  
 360  
 atgatcgaaa ccctcgccga cgcgt  
 385

<210> 940  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 940  
 Xaa Thr Ile Leu Asp Pro Asp Gly Gln Glu Thr Thr Pro Gly Ser Val



```

      1           5           10           15
Ile Glu Gly Leu Gly Leu Leu Pro Val Glu Val Asp Phe Ala Ala Thr
      20           25           30
Lys Thr Leu Ala Leu Ser His Gly Thr Trp Arg Gly Ile Glu Val Gly
      35           40           45
Gly Tyr Glu Ile His His Gly Arg Leu Ser Phe Ala Glu Asp Ala Glu
      50           55           60
Ala Phe Leu Asp Gly Val His Val Gly Pro Val Trp Gly Thr Met Trp
      65           70           75           80
His Gly Ala Phe Glu His Asp Glu Phe Arg Arg Thr Trp Leu Ala Asp
      85           90           95
Ala Ala Arg His Ala Gly Ser Ser Trp Arg Pro His Ser Asp Glu Leu
      100          105          110
Gly Tyr Gln Ala Arg Arg Glu Ala Met Ile Glu Thr Leu Ala Asp Ala
      115          120          125

```

<210> 941  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

```

<400> 941
atcttctggt cgccggtgat cacgctggtg accatcggcc tgctgtttgc cggcaacttc
60
gaagccatgc aaaccatggt cgtgctggcc gggctgccgt tctcgggtgt gctgattttc
120
ttcatgttcg gtttgcacaa ggcgatgcgc caggacgtgg ccatggagca ggagcaggca
180
caattggctg aacgtggtcg ccgtggtttc agcgagcgcc tgaccgcgct ggacctgcaa
240
ccgagccagg gcaccgtgca acgctttatg gacaaacatg tgacgccggc gttggaacaa
300
gcggcgactg cgttgctga tcaagggtg gaagtgcaga ccctgctt
348

```

<210> 942  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 942
Ile Phe Trp Ser Ala Val Ile Thr Leu Val Thr Ile Gly Leu Leu Phe
1           5           10           15
Ala Gly Asn Phe Glu Ala Met Gln Thr Met Val Val Leu Ala Gly Leu
20          25          30
Pro Phe Ser Val Val Leu Ile Phe Phe Met Phe Gly Leu His Lys Ala
35          40          45
Met Arg Gln Asp Val Ala Met Glu Gln Glu Gln Ala Gln Leu Ala Glu
50          55          60
Arg Gly Arg Arg Gly Phe Ser Glu Arg Leu Thr Ala Leu Asp Leu Gln
65          70          75          80
Pro Ser Gln Gly Thr Val Gln Arg Phe Met Asp Lys His Val Thr Pro
85          90          95
Ala Leu Glu Gln Ala Ala Thr Ala Leu Arg Asp Gln Gly Leu Glu Val

```

100  
Gln Thr Leu Leu  
115

105

110

<210> 943  
<211> 439  
<212> DNA  
<213> Homo sapiens

<400> 943  
ccatggcagg agcagagcag atagagcagg acctcgtctc cttctctttg ctttttgtgc  
60  
ctcctctaata gcatcctggg ctcctgctaa cctgtggga aacaccgtct cttctctcct  
120  
ttgccctctt ctgtgatcac atcctcactt ctgagcctat ctgcccatcc agtcaatccc  
180  
ccttggttct gggatgctat ttcctggcc gccctcctct aggagtgttt agaaccctca  
240  
ctgtgggcag aagggaggga agatggctga ggtacctgga aagggacgtg tggatccccg  
300  
ggcatggaag gaaggaggca ggagagctag aaaaagggat gagatctaata gttccctaag  
360  
gaacctggct tagtgctggc ccttcacata ctgagacatg gaatccttac tactgttctc  
420  
tgaggaaaga ggctgttcc  
439

<210> 944  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 944  
Met Ala Gly Ala Glu Gln Ile Glu Gln Asp Leu Val Ser Phe Ser Leu  
1 5 10 15  
His Phe Val Pro Pro Leu Met His Pro Gly Leu Leu Leu Thr Leu Trp  
20 25 30  
Glu Thr Pro Ser Leu Leu Ser Phe Ala Leu Phe Cys Asp His Ile Leu  
35 40 45  
Thr Ser Glu Pro Ile Cys Pro Ser Ser Gln Ser Pro Leu Val Leu Gly  
50 55 60  
Cys Tyr Phe Pro Gly Arg Leu Pro Leu Gly Val Phe Arg Thr Leu Thr  
65 70 75 80  
Val Gly Arg Arg Glu Gly Arg Trp Leu Arg Tyr Leu Glu Arg Asp Val  
85 90 95  
Trp Ile Pro Gly His Gly Arg Pys Glu Ala Gly Glu Leu Glu Lys Gly  
100 105 110  
Met Arg Ser Asn Val Pro  
115

<210> 945  
<211> 339  
<212> DNA  
<213> Homo sapiens

<400> 945  
 ngaattcgtg aagcggtcca ttttttttc cttttaataa tttcaattgc actttatgtc  
 60  
 gagatggtga tatatatata tactcacaca catatatatg tgtgtgtgtg tatatatgta  
 120  
 tatatatata gcgtgtacaa caaaacatgc actgtttact cagcaccocg tgtttgtctc  
 180  
 agcaatagct tttctaaaga actgctacta tttgaaatgg agggggaggg gggctctgga  
 240  
 cagagtattg tgcaagttga aagtctctgg atggggctat gtatatacta ccagccaatt  
 300  
 tgggtgcaaa ttggatttga aggcctgcct ctgtccacn  
 339

<210> 946  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 946  
 Xaa Ile Arg Glu Ala Phe His Ile Phe Phe Leu Leu Ile Ile Ser Ile  
 1 5 10 15  
 Ala Leu Tyr Val Glu Met Val Ile Tyr Ile Tyr Thr His Thr His Ile  
 20 25 30  
 Tyr Val Cys Val Cys Ile Tyr Val Tyr Ile Tyr Ser Val Tyr Asn Lys  
 35 40 45  
 Thr Cys Thr Val Tyr Ser Ala Pro Arg Val Cys Leu Ser Asn Ser Phe  
 50 55 60  
 Ser Lys Glu Leu Leu Leu Phe Glu Met Glu Gly Glu Gly Gly Pro Gly  
 65 70 75 80  
 Gln Ser Ile Val Gln Val Glu Ser Leu Trp Met Gly Leu Cys Ile Ser  
 85 90 95  
 Tyr Gln Pro Ile Trp Val Gln Ile Gly Phe Glu Gly Leu Pro Leu Ser  
 100 105 110  
 Thr

<210> 947  
 <211> 648  
 <212> DNA  
 <213> Homo sapiens

<400> 947  
 tctagatctg ttctcaggga agctgagatg gagatgagtg ggcagcaggt ttatggagtg  
 60  
 ctcgtggcat cacacctgtg cacgggggtg ggggaaggagt ggacaggagt ggacaagtca  
 120  
 agtagtgctg ccggctcaag cgatgcctca gcctttctgc tgtgtgcgaa gctttgcaga  
 180  
 ggagatgatg cttcaaagtt gtcctgttg gggatgagca gccaggcctt tatacactgg  
 240  
 gacagtcagt catggatacg tggatactct ggaaaccctc atccctggag gtctgagccc  
 300

ctggatacca tgcccttctt aggctggagt tgctgccctt gtccatttac cataaaaatt  
 360  
 ggacaagaga ataccaggac acacctgagt ttctcatcgt atgctaaacc tgttcttcca  
 420  
 cgtacatccc caatgtgtac agccctactt tttctgctg atcaagttca attacttctg  
 480  
 ctaagatggt gactattctt gcctgctggt ccttggatgc aaggacccca atgttcaggc  
 540  
 agcctttggt gccttctagc atacgaatca gagcattatc tttagggtg gaataagctg  
 600  
 ccccaaaaacc tgttgaagcc agccaggcac tgtgctccct tcacgcgt  
 648

<210> 948  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 948  
 Met Glu Met Ser Gly Gln Gln Val Tyr Gly Val Leu Val Ala Ser His  
 1 5 10 15  
 Leu Cys Thr Gly Val Gly Lys Glu Trp Thr Gly Val Asp Lys Ser Ser  
 20 25 30  
 Ser Ala Ala Gly Ser Ser Asp Ala Ser Ala Phe Leu Leu Cys Ala Lys  
 35 40 45  
 Leu Cys Arg Gly Asp Asp Ala Ser Lys Leu Ser Leu Leu Gly Met Ser  
 50 55 60  
 Ser Gln Ala Phe Ile His Trp Asp Ser Gln Ser Trp Ile Arg Gly Tyr  
 65 70 75 80  
 Ser Gly Asn Pro His Pro Trp Arg Ser Glu Pro Leu Asp Thr Met Pro  
 85 90 95  
 Phe Leu Gly Trp Ser Cys Cys Pro Cys Pro Phe Thr Ile Lys Ile Gly  
 100 105 110  
 Gln Glu Asn Thr Arg Thr His Leu Ser Phe Ser Ser Tyr Ala Lys Pro  
 115 120 125  
 Val Leu Pro Arg Thr Ser Pro Met Cys Thr Ala Leu Leu Phe Ser Ala  
 130 135 140  
 Asp Gln Val Gln Leu Leu Leu Arg Trp  
 145 150

<210> 949  
 <211> 661  
 <212> DNA  
 <213> Homo sapiens

<400> 949  
 acgcgtactg gttggctcat tcaactgaaaa tatgatgaca tttaaaggaa atgcaagaat  
 60  
 aagtaatgtg gaattttatc acagtgggtca agaaggcttc agggatagca cagatccaag  
 120  
 atatgctgta acgtttctta acctaggaca gattcaagaa catgggtcat cttatatctg  
 180  
 aggctgtgct tttcaccatg gcttctctcc agcaattggt gtatttggga cagatggatt  
 240

ggacatagat gacaacatca ttcactttac agtgggggaa ggcataagaa tatgggggaa  
 300  
 tgccaaccga gtccgaggga atttgattgc actttcggtt tggccaggaa cctatcagaa  
 360  
 cagaaaagat ttaagttcaa ctctctggca tgcagcaatt gagataaata gaggggaccaa  
 420  
 tacagtttta cagaataatg tagtggctgg atttgggaaga gcaggatacc gcattgatgg  
 480  
 tgaaccttgc ccaggccagt ttaatcctgt ggaaaagtgg tttgacaatg aagcccatgg  
 540  
 aggtttatat gggatctata tgaaccaaga tggccttcct ggatgttctc ttatacaagg  
 600  
 atttaccatt tggacatgct gggattatgg aatttatattt cagaccacag agagtgtgca  
 660  
 c  
 661

<210> 950  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 950  
 Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe Tyr  
 1 5 10 15  
 His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr Ala  
 20 25 30  
 Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser Tyr  
 35 40 45  
 Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly Val  
 50 55 60  
 Phe Gly Thr Asp Gly Leu Asp Ile Asp Asp Asn Ile Ile His Phe Thr  
 65 70 75 80  
 Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg Gly  
 85 90 95  
 Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg Lys  
 100 105 110  
 Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg Gly  
 115 120 125  
 Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg Ala  
 130 135 140  
 Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro Val  
 145 150 155 160  
 Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile Tyr  
 165 170 175  
 Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe Thr  
 180 185 190  
 Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu Ser  
 195 200 205  
 Val His  
 210

<210> 951  
 <211> 2615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 951

nntccagccc ccaccatgcc gtggcccctg ctgctgctgc tggccgtgag tggggcccag  
60  
acaacccggc catgcttccc cgggtgccaa tgcgaggtgg agaccttcgg ccttttcgac  
120  
agcttcagcc tgactcgggt ggattgtagc ggcctgggccc cccacatcat gccgggtgcc  
180  
atccctctgg acacagccca cttggacctg tcctccaacc ggctggagat ggtgaatgag  
240  
tcggtgttgg cggggccggg ctacacgacg ttggctggcc tggatctcag ccacaacctg  
300  
ctcaccagca tctaccccac tgccttctcc cgccttcgct acctggagtc gcttgacctc  
360  
agccacaatg gcctgacagc cctgccagcc gagagcttca ccagctcacc cctgagcgac  
420  
gtgaacctta gccacaacca gctccgggag gtctcagtgt ctgccttcac gacgcacagt  
480  
cagggccggg cactacacgt ggacctctcc cacaacctct caccgcctcg tgccccaccc  
540  
cacgagggcc ggcctgcctg cgcaccat tcagagcctg aacctggcct ggaaccggct  
600  
ccatgccgtg cccaacctcg agacttgccc ctgcgctacc tgagcctgga tgggaacct  
660  
ctagctgtca ttggtccggg tgccttcgcg gggctgggag gccttacaca cctgtctctg  
720  
gccagcctgc agaggtccc tgagctggcg ccagtggtc tccgtgagct accgggcctg  
780  
caggtcctgg acctgtcggg caaccccaag cttaactggg caggagctga ggtgttttca  
840  
ggcctgagct ccctgcagga gctggacctt tcgggcacca acctggtgcc cctgcctgag  
900  
gcgtgctcc tccacctccc ggcactgcag agcgtcagcg tgggccagga tgtgcggtgc  
960  
cggcgccctg tgcgggaggg cacctacccc cggaggcctg gctccagccc caaggtggcc  
1020  
ctgcactgcg tagacaccg ggaatctgct gccaggggccc ccacctctt gtgacaaatg  
1080  
gtgtggccca gggccacata acagactgct gtcttgggct gcctcaggtc ccgagtaact  
1140  
tatgttcaat gtgccaacac cagtggggag cccgcaggcc tatgtggcag cgtcaccaca  
1200  
ggagtgttgg gcctaggaga ggctttggac ctgggagcca cacctaggag caaagtctca  
1260  
cccctttgtc tacgttgctt ccccaaacca tgagcagagg gacttcgatg ccaaaccaga  
1320  
ctcgggtccc ctctgcttc ccttccccac ttatccccca agtgccttcc ctcatgcctg  
1380  
ggccggcctg acccgcaatg ggcagagggg ggggtgggacc ccctgctgca gggcagagtt  
1440  
caggtccact gggctgagtg tccccttggg cccatggccc agtcactcag gggcgagttt  
1500

cttttctaac atagcccttt ctttgccatg aggccatgag gcccgttca tccttttcta  
 1560  
 ttccctaga accttaatgg tagaaggaat tgcaaagaat caagtccacc cttctcatgt  
 1620  
 gacagatggg gaaactgagg ccttgagaag gaaaaaggct aatctaagtt cctgcgggca  
 1680  
 gtggcatgac tggagcacag cctcctgcct cccagcccgg acccaatgca ctttcttgtc  
 1740  
 tcctctaata agccccaccc tccccgcctg ggctccccct gctgcccttg cctgttcccc  
 1800  
 attagcacag gagtagcagc agtaggacag gcaagagcct cacaagtggg actctggggc  
 1860  
 tctgaccagc tgtgcggcat gggctaagtc actctgcctt tcggagcctc tggaagctta  
 1920  
 gggcacattg gttccagcct agccagtctc tcaccctggg ttgggggtccc ccagcatcca  
 1980  
 gactggaaac ctaccattt tccccgagc atcctctaga tgctgccccca aggagtgtgt  
 2040  
 gcagttctgg agcctcatct ggctgggatc tccaaggggc ctctggatt cagtccccac  
 2100  
 tggccctgag cagcagagcc cttcttacct tcccaggaat gccgtgaaag gagacaagg  
 2160  
 ctgcccagcc catgtctatg ctctaccccc agggtagcat ctcagcttcc gaaccctggg  
 2220  
 ctgtttcctt agtcttcatt ttataaaagt tggtgccttt ttaacggagt gtcactttca  
 2280  
 accggcctcc cctacccttg ctggccgggg atggagacat gtcatttgta aaagcagaaa  
 2340  
 aaggttgcac ttgttcactt ttgtaatat gtcctggggc tgtgttgggg tggtggggga  
 2400  
 agctgggcat cagtggccac atgggcatca ggggctggcc ccacagagac cccacagggc  
 2460  
 agtgagctct gtcttcccccc acctgcctag cccatcatct atctaaccgg tccttgattt  
 2520  
 aataaacact ataaaatgaa gactaaggaa acagcccagg gttcggaagc tgagatgcta  
 2580  
 ccctgggggt agagcataga catgggtcgg gcaga  
 2615

&lt;210&gt; 952

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 952

Xaa Pro Ala Pro Thr Met Pro Trp Pro Leu Leu Leu Leu Leu Ala Val  
 1 5 10 15  
 Ser Gly Ala Gln Thr Thr Arg Pro Cys Phe Pro Gly Cys Gln Cys Glu  
 20 25 30  
 Val Glu Thr Phe Gly Leu Phe Asp Ser Phe Ser Leu Thr Arg Val Asp  
 35 40 45  
 Cys Ser Gly Leu Gly Pro His Ile Met Pro Val Pro Ile Pro Leu Asp  
 50 55 60  
 Thr Ala His Leu Asp Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu

65                                      70                                      75                                      80  
 Ser Val Leu Ala Gly Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu  
                                          85                                      90                                      95  
 Ser His Asn Leu Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu  
                                          100                                      105                                      110  
 Arg Tyr Leu Glu Ser Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu  
                                          115                                      120                                      125  
 Pro Ala Glu Ser Phe Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser  
                                          130                                      135                                      140  
 His Asn Gln Leu Arg Glu Val Ser Val Ser Ala Phe Thr Thr His Ser  
                                          145                                      150                                      155                                      160  
 Gln Gly Arg Ala Leu His Val Asp Leu Ser His Asn Leu Ser Pro Pro  
                                          165                                      170                                      175  
 Arg Ala Pro Pro His Glu Gly Arg Pro Ala Cys Ala His His Ser Glu  
                                          180                                      185                                      190  
 Pro Glu Pro Gly Leu Glu Pro Ala Pro Cys Arg Ala Gln Pro Arg Asp  
                                          195                                      200                                      205  
 Leu Pro Leu Arg Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile  
                                          210                                      215                                      220  
 Gly Pro Gly Ala Phe Ala Gly Leu Gly Gly Leu Thr His Leu Ser Leu  
                                          225                                      230                                      235                                      240  
 Ala Ser Leu Gln Arg Leu Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu  
                                          245                                      250                                      255  
 Leu Pro Gly Leu Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn  
                                          260                                      265                                      270  
 Trp Ala Gly Ala Glu Val Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu  
                                          275                                      280                                      285  
 Asp Leu Ser Gly Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu Leu  
                                          290                                      295                                      300  
 His Leu Pro Ala Leu Gln Ser Val Ser Val Gly Gln Asp Val Arg Cys  
                                          305                                      310                                      315                                      320  
 Arg Arg Leu Val Arg Glu Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser  
                                          325                                      330                                      335  
 Pro Lys Val Ala Leu His Cys Val Asp Thr Arg Glu Ser Ala Ala Arg  
                                          340                                      345                                      350  
 Gly Pro Thr Ile Leu  
                                          355

&lt;210&gt; 953

&lt;211&gt; 347

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 953

acgcgtgaag ccaccctgt gcgcaggcca gtctcgcggg ggtcaccacg gagcgtgtgc  
 60  
 accacacttt ccccatccct tgatccatca ttgggcgttg aggttttccc atgtcttgac  
 120  
 tgttgtacct ggcggctctg cggagtaacc gctgcggaca cacagtagga cgggagggag  
 180  
 aagccattgc gtttcaccct ttcattggccc ttcctttccc cttccaagtg agctctttga  
 240  
 ggtgagtcac ggagggcagt gtccctctgc atcctgtctg gggttgtcaa atatggccaa  
 300



gtgggctcca tcggggcagc ggggtgggggtg ggggggtgtct gtcagag  
347

<210> 954  
<211> 103  
<212> PRT  
<213> Homo sapiens

<400> 954  
Met Glu Pro Thr Trp Pro Tyr Leu Thr Thr Pro Asp Arg Met Gln Arg  
1 5 10 15  
Asp Thr Ala Leu His Asp Ser Pro Gln Arg Ala His Leu Glu Gly Glu  
20 25 30  
Arg Lys Gly His Glu Arg Val Lys Arg Asn Gly Phe Ser Leu Pro Ser  
35 40 45  
Tyr Cys Val Ser Ala Ala Val Thr Pro Gln Ser Arg Gln Val Gln Gln  
50 55 60  
Ser Arg His Gly Lys Thr Ser Thr Pro Asn Asp Gly Ser Arg Asp Gly  
65 70 75 80  
Glu Ser Val Val His Thr Leu Arg Gly Asp Pro Arg Glu Thr Gly Leu  
85 90 95  
Arg Thr Gly Met Ala Ser Arg  
100

<210> 955  
<211> 634  
<212> DNA  
<213> Homo sapiens

<400> 955  
acgcgtgaag ggctctgcag gtgagcggct ctgcagggtga agggttctgc aggtgagcgg  
60  
ctctgcagggt gaatgggtct gcagggtgaag ggctctgcag gtgaacgggt ctgcagggtga  
120  
agggtctctgc aggtgaacgg ttctgcagggt gagcggctct gcagggtgagc ggctctgcat  
180  
gtgagtgcct ctgtgactgg ctgcgaagca gcatttgtgc aacttgact ggccacaaca  
240  
gaatgttctt ctctgttgtc agcactgagg aggaagctcc tgcctaagcg accacagcca  
300  
ggcaccgct ccatggagac attgctctct ccagactcca ttcagactca ggaaacctga  
360  
gtccttgaa tgcaggctga ggcagctccc acacaaaagc tatctactct ggcagttatc  
420  
agaggcctcc gttgcacaaa tcacacacct actgtgcctg acgtggctgg gcctccagca  
480  
ggacccgctc ctgagaacac acgggtgcta gtccaagttc acagcacggc tcaagtcact  
540  
cccacaaacc tctctataca aacacacaaa gctctgggag gctaccctgc atccaagagt  
600  
caccatctca cacctggaac aagggttacg gccg  
634

<210> 956

<211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 956  
 Met Glu Ser Gly Glu Ser Asn Val Ser Met Glu Arg Val Pro Gly Cys  
 1 5 10 15  
 Gly Arg Leu Gly Arg Ser Phe Leu Leu Ser Ala Asp Asn Arg Glu Glu  
 20 25 30  
 His Ser Val Val Ala Ser Gln Val Cys Thr Asn Ala Ala Cys Glu Pro  
 35 40 45  
 Val Thr Glu Ala Leu Thr Cys Arg Ala Ala His Leu Gln Ser Arg Ser  
 50 55 60  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Leu His Leu Gln Asn Arg Ser  
 65 70 75 80  
 Pro Ala Glu Pro Phe Thr Cys Arg Thr Ile His Leu Gln Ser Arg Ser  
 85 90 95  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Ala His Leu Gln Ser Pro Ser  
 100 105 110  
 Arg

<210> 957  
 <211> 823  
 <212> DNA  
 <213> Homo sapiens

<400> 957  
 acgcgtggcc tgaccaccgt gtcccgccca tctacagggtg cccgagatcg tgagcgtcct  
 60  
 gcgctccaag cttcaggagg cccagggaga gcacgtcctg ccggccaccc agcacagcgt  
 120  
 gtacctcctg gccaccacgc actgcgcagc cgtgggtgtcc agcctcctgg gcagccccct  
 180  
 gcccttggac aggtaccacg ctcagactcc aggccttaggg gtccctctgg aatgatgtct  
 240  
 cccctggaat gatgctcccc gagccctcca cccggctctg cccccgact ttctgcatga  
 300  
 gttcccatgg ctgtaggcca cgtgggacag aaagtgacat ggagccaggc cccagtctct  
 360  
 caggtaccca cggggacctc tcctctccag gcgttttggg atcctcactg gtcctcgggtg  
 420  
 gccctgcaca gcacccccac agggaagctg ctgtttctgc cttcctctaa ggtcccaaaa  
 480  
 ctgcctggct gctctgttgg cccagggctc cagcacacac tggagggtgc ccctcaccct  
 540  
 gtgtcttgggt tccggctact ccaagccttg tcctctgcag ggcattccact gctgcctgtg  
 600  
 agcagacccc tgggaactgc ctgatctgag cccctcagg agcccaagga caaccttgtc  
 660  
 tgtaccatac atcactatgt cttcccaagc tcacacctcc cagctcccag caaagggcag  
 720  
 ggcgtgtcta ccaccaccca gccactggg gtcccccttc ctcgccgagg cctccggagc  
 780

atgggtctgc tggcccttcc tttctttgcc tcttagtctg gaa  
823

<210> 958  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 958  
Met Ala Val Gly His Val Gly Gln Lys Val Thr Trp Ser Gln Ala Pro  
1 5 10 15  
Val Ser Gln Val Pro Thr Gly Thr Ser Pro Leu Gln Ala Phe Trp Asp  
20 25 30  
Pro His Trp Leu Arg Trp Ala Leu His Ser Thr Pro Thr Gly Lys Leu  
35 40 45  
Leu Phe Leu Pro Ser Ser Lys Val Pro Lys Leu Pro Gly Cys Ser Val  
50 55 60  
Gly Pro Arg Leu Gln His Thr Leu Glu Ala Ala Pro His Pro Val Ser  
65 70 75 80  
Trp Phe Arg Leu Leu Gln Ala Leu Ser Ser Ala Gly His Pro Leu Leu  
85 90 95  
Pro Val Ser Arg Pro Leu Gly Thr Ala  
100 105

<210> 959  
<211> 586  
<212> DNA  
<213> Homo sapiens

<400> 959  
ngtcatgact gcatggccaa gcatgactcc aacaccatca ttaagtttgc cgacgacaca  
60  
acagtggtag gcctgatcac cgacaacgat gaggcagcct atagggagga ggtagagac  
120  
ctggcagtgt ggtgccagga taacaacctc tccctcaacg tgatcaagac cacgaagatg  
180  
atcgtggact acaggaaaag gagggctcag cagccccca ttctcattga tggggctgta  
240  
tgggagccag ttgagagctt caagttcctt ggtgtccaca tcaccatcga actatcatgg  
300  
tccaaacaca ccaagacagt agtgaagagg gtgcgacaat gcctattcca cctcggtaga  
360  
caaaaaagat ttggaatgga tctcagacc ctcaaaaagt ttgacatcta caccatcgag  
420  
agcatcatga ctggttgcac caccgcttgg tatggcaact gctcggcctc cgaccgcaag  
480  
gcactacaga gggtagtgcg tacggcccag tacatcactg gggctaagct tcttgccatc  
540  
caggacctct ataccaggcg gtgtcagcgg aagaccctga caattg  
586

<210> 960  
<211> 195  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 960

Xaa His Asp Cys Met Ala Lys His Asp Ser Asn Thr Ile Ile Lys Phe  
 1 5 10 15  
 Ala Asp Asp Thr Thr Val Val Gly Leu Ile Thr Asp Asn Asp Glu Ala  
 20 25 30  
 Ala Tyr Arg Glu Glu Val Arg Asp Leu Ala Val Trp Cys Gln Asp Asn  
 35 40 45  
 Asn Leu Ser Leu Asn Val Ile Lys Thr Thr Lys Met Ile Val Asp Tyr  
 50 55 60  
 Arg Lys Arg Arg Val Glu His Ala Pro Ile Leu Ile Asp Gly Ala Val  
 65 70 75 80  
 Trp Glu Pro Val Glu Ser Phe Lys Phe Leu Gly Val His Ile Thr Ile  
 85 90 95  
 Glu Leu Ser Trp Ser Lys His Thr Lys Thr Val Val Lys Arg Val Arg  
 100 105 110  
 Gln Cys Leu Phe His Leu Gly Arg Gln Lys Arg Phe Gly Met Asp Pro  
 115 120 125  
 Gln Thr Leu Lys Lys Phe Asp Ile Tyr Thr Ile Glu Ser Ile Met Thr  
 130 135 140  
 Gly Cys Ile Thr Ala Trp Tyr Gly Asn Cys Ser Ala Ser Asp Arg Lys  
 145 150 155 160  
 Ala Leu Gln Arg Val Val Arg Thr Ala Gln Tyr Ile Thr Gly Ala Lys  
 165 170 175  
 Leu Pro Ala Ile Gln Asp Leu Tyr Thr Arg Arg Cys Gln Arg Lys Thr  
 180 185 190  
 Leu Thr Ile  
 195

&lt;210&gt; 961

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 961

acgcgttggtc gtctctccgt agaccattca gtttggcaaa acttccactg gagtctgtgc  
 60  
 atgactggat ggtctctttg acagccctgt caaggaatac caacagaata ttgattctcc  
 120  
 taaactgtat agtaacctgc taaccagtcg gaaagagcta ccaccaatg gagatactaa  
 180  
 atccatggta atggaccatc gagggcaacc tccagagttg gctgctcttc ccaactcctga  
 240  
 gtctacaccc gtgcttcacc agaagaccct gcaggccatg aagagccact cagaaaaggc  
 300  
 ccatggccat ggagcttcaa ggaaagaaac ccctcagttt tttccgtcta gtccgccacc  
 360  
 tcattcccca ataagtcatg ggcataatccc cagtgcatt gttcttccaa atgctaccca  
 420  
 tgactacaac acgtctttct caaactccaa tgctcacaaa gctgaaaaga agcttcaaaa  
 480  
 cattgatcac cccttcacgc gt  
 502

<210> 962  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 962  
 Met Val Met Asp His Arg Gly Gln Pro Pro Glu Leu Ala Ala Leu Pro  
 1 5 10 15  
 Thr Pro Glu Ser Thr Pro Val Leu His Gln Lys Thr Leu Gln Ala Met  
 20 25 30  
 Lys Ser His Ser Glu Lys Ala His Gly His Gly Ala Ser Arg Lys Glu  
 35 40 45  
 Thr Pro Gln Phe Phe Pro Ser Ser Pro Pro Pro His Ser Pro Ile Ser  
 50 55 60  
 His Gly His Ile Pro Ser Ala Ile Val Leu Pro Asn Ala Thr His Asp  
 65 70 75 80  
 Tyr Asn Thr Ser Phe Ser Asn Ser Asn Ala His Lys Ala Glu Lys Lys  
 85 90 95  
 Leu Gln Asn Ile Asp His Pro Phe Thr Arg  
 100 105

<210> 963  
 <211> 1298  
 <212> DNA  
 <213> Homo sapiens

<400> 963  
 nntcgcgagc acactccagc ctctggggag caggccacag aacgcagggt gaaacccaag  
 60  
 gcgctctaga ggagatgaat tatggatccg ccctcccga atcctggctc ggcctcccc  
 120  
 acgccaccca gggccagtcg ggtctgctca cagcccagg aggccgcgtg tccagccgcg  
 180  
 ggcaagagac agagcaggtc cctgtgtatc caagtccttg agcccgtgac accggcccca  
 240  
 ggccctgtag agagccagca gccaccatgg cgaaggagga agatgaggag aagaaagcca  
 300  
 agaaagggaa gaaggggaag aaggcaccgg acccgagaa gcccaaacgg agcctgaagg  
 360  
 ggacgtcgcg ggtgttcatt ggcttcgcg accgaacacc caagatctac aagaagggcc  
 420  
 agttccgcag cgcttcggcc ttcttctggg gcctccacac cgccccccac aagaccaagc  
 480  
 gcacgaggaa ggcccgcacc gtgctcgggt acacgtcaga gcttatgacg cacatgcgca  
 540  
 tgggcaagaa gaagcgggag atgaagggca agaagccgtc cttcatgggtg atccgcttcc  
 600  
 caggccgccc tggtacggc cgcttcggc cgcgcgccc gtcactcagc aaagcgtcca  
 660  
 cggccatcaa ctggctcaca aaaaagttcc tctcaagaa ggccgaggag tcgggcagcg  
 720  
 aacaggccac agtggacgcc tggctgcagc gctcagctc ccgcatgggc tcccgaac  
 780

tcccccttccc gtcgggtgcc gagatcctgc ggcctggggg cgggctccgg aggttcccc  
 840  
 gcagccgcag catctacgcg tcaggcgagc ccctgggctt cctgcccttc gaggacgagg  
 900  
 cccattcca tcaactcgggc tcccgaagt cgctgtacgg gcttgagggc ttccaggacc  
 960  
 tgggcgagta ttatgactat caccgcgacg gcgacgacta ctacgaccgg cagtcactcc  
 1020  
 accgctacga ggagcaggaa ccctacctgg cgggcctcgg cccctacagc ccggcctggc  
 1080  
 caccctacgg cgaccactac tacgggtacc cgcccgagga tccctacgac tactaccacc  
 1140  
 ccgactatta cgggtggcccc gttgatccgg ggtacaccta cggctacggc tacgacgatt  
 1200  
 acgaaccccc atatgcgccc ccgtcggggg actcgtctcc ttacagctac cacgatgggt  
 1260  
 acgagggcga ggcgcaccct tatggctact acctggat  
 1298

<210> 964

<211> 235

<212> PRT

<213> Homo sapiens

<400> 964

Ser	Ala	Ser	Gln	Ala	Ala	Val	Ala	Thr	Ala	Ala	Cys	Gly	Arg	Ala	Pro
1			5						10					15	
Gly	His	Ser	Ala	Lys	Arg	Pro	Arg	Pro	Ser	Thr	Gly	Ser	Gln	Lys	Ser
			20					25					30		
Ser	Ser	Ser	Arg	Arg	Pro	Arg	Ser	Arg	Ala	Ala	Asn	Arg	Pro	Gln	Trp
		35					40				45				
Thr	Pro	Gly	Cys	Ser	Ala	Arg	Ala	Pro	Ala	Trp	Ala	Pro	Ala	Asn	Ser
		50				55				60					
Pro	Ser	Arg	Arg	Val	Pro	Arg	Ser	Cys	Gly	Leu	Gly	Ala	Gly	Ser	Gly
65				70					75					80	
Gly	Ser	Pro	Ala	Ala	Ala	Ala	Ser	Thr	Arg	Gln	Ala	Ser	Pro	Trp	Ala
			85						90					95	
Ser	Cys	Pro	Ser	Arg	Thr	Arg	Pro	His	Ser	Ile	Thr	Arg	Ala	Pro	Ala
		100						105					110		
Ser	Arg	Cys	Thr	Gly	Leu	Arg	Ala	Ser	Arg	Thr	Trp	Ala	Ser	Ile	Met
		115					120					125			
Thr	Ile	Thr	Ala	Thr	Ala	Thr	Thr	Thr	Thr	Gly	Ser	His	Ser	Thr	
		130				135				140					
Ala	Thr	Arg	Ser	Arg	Asn	Pro	Thr	Trp	Arg	Ala	Ser	Ala	Pro	Thr	Ala
145					150					155				160	
Arg	Pro	Gly	His	Pro	Thr	Ala	Thr	Thr	Thr	Gly	Thr	Arg	Pro	Arg	
			165					170					175		
Ile	Pro	Thr	Thr	Thr	Thr	Thr	Pro	Thr	Ile	Thr	Val	Ala	Pro	Leu	Ile
		180						185				190			
Arg	Gly	Thr	Pro	Thr	Ala	Thr	Ala	Thr	Thr	Ile	Thr	Asn	Pro	His	Met
		195					200					205			
Arg	Pro	Arg	Arg	Gly	Thr	Arg	Leu	Leu	Thr	Ala	Thr	Met	Gly	Thr	
		210					215					220			
Arg	Ala	Arg	Arg	Thr	Leu	Met	Ala	Thr	Thr	Trp					

225

230

235

&lt;210&gt; 965

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 965

```

nnngtgacca ttatgggtgg tgcccgtagc cgtgaagtgg aaggcggtga tttgttggc
60
cgggtcagcg atgccgaaaa ggctgaaatc ctcggccgcg ccgatgtgta tgcgcccc
120
aataccggcg gtgagagctt tggcattgtc ttggtggaag ccatggcggc aggcgcagcc
180
gttgttgctt cagacttgga ggccttcgc gcagtgtgca acgccgattc cgatgatgtt
240
gccggcgcg tatatcgcaa tgaggatagt aatgacctg ctcgtgtact caacgaggtg
300
ctcaggatc ctgagtatcg tgcccgctta gtgcac
336

```

&lt;210&gt; 966

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 966

```

Xaa Val Thr Ile Met Gly Gly Ala Arg Thr Arg Glu Val Glu Gly Val
1      5      10      15
Asp Phe Val Gly Arg Val Ser Asp Ala Glu Lys Ala Glu Ile Leu Gly
20     25     30
Arg Ala Asp Val Tyr Val Ala Pro Asn Thr Gly Gly Glu Ser Phe Gly
35     40     45
Ile Val Leu Val Glu Ala Met Ala Ala Gly Ala Ala Val Val Ala Ser
50     55     60
Asp Leu Glu Ala Phe Arg Ala Val Cys Asn Ala Asp Ser Asp Asp Val
65     70     75     80
Ala Gly Ala Leu Tyr Arg Asn Glu Asp Ser Asn Asp Leu Ala Arg Val
85     90     95
Leu Asn Glu Val Leu Glu Asp Pro Glu Tyr Arg Ala Arg Leu Val His
100    105    110

```

&lt;210&gt; 967

&lt;211&gt; 393

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 967

```

ncaaatggca attcatagcc cgccagatcg gacacggagc tgggtggtatc cacggattcg
60
ggcgcggagg cgtcgggctc aagctccgct tcggcaccgg tcggcactga ggaatctccg
120
tcggcctccg cttcggccgc agcctgggct gcgccagact ctgcgggagg caccttctcc
180

```

cgggttcgcc agccaaatgg cggtgcaggc tccagcatcc agtccggtgc ctccggcacc  
 240  
 cccgcactgc gcagagaggg cgccagaaac gatggcaccg gcggcgcggg aggtgataca  
 300  
 ggcgcttcgg ccggagcgct cacggactcc ggcactacag gtgcagcttg cgcttctctg  
 360  
 ggcggagcaa cagggtcact tcgaggcggg gat  
 393

<210> 968  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 968  
 Pro Ala Arg Ser Asp Thr Glu Leu Val Val Ser Thr Asp Ser Gly Ala  
 1 5 10 15  
 Glu Ala Ser Gly Ser Ser Ser Ala Ser Ala Pro Val Gly Thr Glu Glu  
 20 25 30  
 Ser Pro Ser Ala Ser Ala Ser Ala Ala Trp Ala Ala Pro Asp Ser  
 35 40 45  
 Ala Gly Gly Thr Phe Ser Arg Val Arg Gln Pro Asn Gly Val Ala Gly  
 50 55 60  
 Ser Ser Ile Gln Ser Gly Ala Phe Gly Thr Pro Ala Leu Arg Arg Glu  
 65 70 75 80  
 Ala Ala Arg Asn Asp Gly Thr Gly Gly Ala Gly Gly Asp Thr Gly Ala  
 85 90 95  
 Ser Ala Gly Ala Leu Thr Asp Ser Gly Thr Thr Gly Ala Ala Cys Ala  
 100 105 110  
 Ser Cys Gly Gly Ala Thr Gly Ser Leu Arg Gly Gly Asp  
 115 120 125

<210> 969  
 <211> 880  
 <212> DNA  
 <213> Homo sapiens

<400> 969  
 caattgtcat gcaggacacc aaagatgaac acaggcttca cagtggcaaa ctctgtctga  
 60  
 ttatccttac atgtattgca gaggatcaat atgaccatgc atttttgcac gatgatcaac  
 120  
 atgaattttc gagtaaactt acatagaatg cctatgagac acaggaagaa ggcagcagac  
 180  
 aagaatctta ccctgccgtc tttagtatgt gaagtactgg acctgatggt agagtttatt  
 240  
 gtaacacaca tgatgaagga gtttcctatg gatctctata tacgctgcat ccaggtagta  
 300  
 cacaaactgc tctgctacca gaagaagtgt cgggtacgcc tgcattacac ctggcgggag  
 360  
 ctctggtcag ccttgataaa tttgctgaag ttccttatgt caaatgagac tgtacttttg  
 420  
 gccaaacaca acattttttac attagccctt atgattgtga acctatttaa tatgtttatc  
 480



acatatggcg acacatttct gccaaccccc agcagctatg atgaacttta ctatgagatt  
 540  
 atccgcatgc accagagctt tgacaacctc tactccatgg tcctgaggct ttctaccaat  
 600  
 gcaggccagt ggaaggaagc agctagcaag gtgacccatg cattgggttaa tatcagagcc  
 660  
 atcatcaacc actttaaccc caaaattgag tcctacgctg ctgtgaatca catatcccaa  
 720  
 ctgtcagagg agcaggtgct ggaggtggtg agagccaact atgacacgct cacgctgaag  
 780  
 ctgcaggatg gcctggacca gtatgagcgc tactcagagc agcacaagga agctgccttc  
 840  
 ttcaaagagc tggttcgatc cattagcacc aacgtccgga  
 880

&lt;210&gt; 970

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 970

Met	Thr	Met	His	Phe	Cys	Met	Met	Ile	Asn	Met	Asn	Phe	Arg	Val	Asn
1				5					10					15	
Leu	His	Arg	Met	Pro	Met	Arg	His	Arg	Lys	Lys	Ala	Ala	Asp	Lys	Asn
			20					25					30		
Leu	Thr	Leu	Pro	Ser	Leu	Val	Cys	Glu	Val	Leu	Asp	Leu	Met	Val	Glu
		35					40					45			
Phe	Ile	Val	Thr	His	Met	Met	Lys	Glu	Phe	Pro	Met	Asp	Leu	Tyr	Ile
	50				55					60					
Arg	Cys	Ile	Gln	Val	Val	His	Lys	Leu	Leu	Cys	Tyr	Gln	Lys	Lys	Cys
65				70						75				80	
Arg	Val	Arg	Leu	His	Tyr	Thr	Trp	Arg	Glu	Leu	Trp	Ser	Ala	Leu	Ile
			85					90						95	
Asn	Leu	Leu	Lys	Phe	Leu	Met	Ser	Asn	Glu	Thr	Val	Leu	Leu	Ala	Lys
			100					105						110	
His	Asn	Ile	Phe	Thr	Leu	Ala	Leu	Met	Ile	Val	Asn	Leu	Phe	Asn	Met
		115					120					125			
Phe	Ile	Thr	Tyr	Gly	Asp	Thr	Phe	Leu	Pro	Thr	Pro	Ser	Ser	Tyr	Asp
	130					135					140				
Glu	Leu	Tyr	Tyr	Glu	Ile	Ile	Arg	Met	His	Gln	Ser	Phe	Asp	Asn	Leu
145				150						155				160	
Tyr	Ser	Met	Val	Leu	Arg	Leu	Ser	Thr	Asn	Ala	Gly	Gln	Trp	Lys	Glu
			165					170						175	
Ala	Ala	Ser	Lys	Val	Thr	His	Ala	Leu	Val	Asn	Ile	Arg	Ala	Ile	Ile
			180					185						190	
Asn	His	Phe	Asn	Pro	Lys	Ile	Glu	Ser	Tyr	Ala	Ala	Val	Asn	His	Ile
		195				200						205			
Ser	Gln	Leu	Ser	Glu	Glu	Gln	Val	Leu	Glu	Val	Val	Arg	Ala	Asn	Tyr
	210					215						220			
Asp	Thr	Leu	Thr	Leu	Lys	Leu	Gln	Asp	Gly	Leu	Asp	Gln	Tyr	Glu	Arg
225				230						235				240	
Tyr	Ser	Glu	Gln	His	Lys	Glu	Ala	Ala	Phe	Phe	Lys	Glu	Leu	Val	Arg
			245					250						255	
Ser	Ile	Ser	Thr	Asn	Val	Arg									

260

<210> 971  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<400> 971  
 tcgcgaggcc tcactatgga gccttctgag gtgctcaacc ttattaaaga ctccggacta  
 60  
 cgcggtcgtg gtggtgcagg cttccccact ggggtgaaat ggtcctttgt tccccaaaac  
 120  
 aatcccaacc ccaaatacct ggttgtaaac ggagacgaat ccgaaccgga cacgtgcaag  
 180  
 gacatgccgc tcattatggc aagcccgac acgcttgctg aaggtgctct tatctccgc  
 240  
 tacgctttcg gatccgagca ggctttcatc tacctccgtg gagaagttgt tcaggtagcc  
 300  
 cgcgcccttg aagaaaaaaaa aaaaatgcga nnnnnnn  
 337

<210> 972  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 972  
 Ser Arg Gly Leu Thr Met Glu Pro Ser Glu Val Leu Asn Leu Ile Lys  
 1 5 10 15  
 Asp Ser Gly Leu Arg Gly Arg Gly Gly Ala Gly Phe Pro Thr Gly Val  
 20 25 30  
 Lys Trp Ser Phe Val Pro Gln Asn Asn Pro Asn Pro Lys Tyr Leu Val  
 35 40 45  
 Val Asn Gly Asp Glu Ser Glu Pro Gly Thr Cys Lys Asp Met Pro Leu  
 50 55 60  
 Ile Met Ala Ser Pro His Thr Leu Val Glu Gly Ala Leu Ile Ser Arg  
 65 70 75 80  
 Tyr Ala Phe Gly Ser Glu Gln Ala Phe Ile Tyr Leu Arg Gly Glu Val  
 85 90 95  
 Val Gln Val Ala Arg Arg Leu Glu Glu Lys Lys Lys Met Arg Xaa Xaa  
 100 105 110

<210> 973  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 973  
 acgcgtgaag gggaaagggg gagtcgtctc cttgggtcct aagtgcgccc tctccaggtt  
 60  
 ccagcagggc ggcacagcca aggaaatggc atggctcctgc tgcattggtc tcagtgggg  
 120  
 ccgggacctt ctgtataggc atcacttagg aaccagtcag accatcagat tctcaggacc  
 180

cactggatca actgagtcag gaactcaggg ttttcaacac atcctccggg gggattccag  
 240  
 tggctgtgta actttgagga ccactggcaa agtggctctg gggtcagaga tccgagttca  
 300  
 tattctgggt ctgcctctga ctgactgcaa cggtagggcaa gtcacttgcc gtgccagcc  
 360

<210> 974

<211> 91

<212> PRT

<213> Homo sapiens

<400> 974

Met	Ala	Trp	Ser	Cys	Cys	Met	Val	Leu	Ser	Gly	Val	Arg	Asp	Leu	Leu
1				5					10				15		
Tyr	Arg	His	His	Leu	Gly	Thr	Ser	Gln	Thr	Ile	Arg	Phe	Ser	Gly	Pro
		20					25					30			
Thr	Gly	Ser	Thr	Glu	Ser	Gly	Thr	Gln	Gly	Phe	Gln	His	Ile	Leu	Arg
	35					40				45					
Gly	Asp	Ser	Ser	Gly	Cys	Val	Thr	Leu	Arg	Thr	Thr	Gly	Lys	Val	Ala
50					55				60						
Leu	Gly	Ser	Glu	Ile	Arg	Val	His	Ile	Leu	Gly	Leu	Pro	Leu	Thr	Asp
65				70				75					80		
Cys	Asn	Gly	Gly	Gln	Val	Thr	Cys	Arg	Ala	Gln					
				85				90							

<210> 975

<211> 2604

<212> DNA

<213> Homo sapiens

<400> 975

gcagcctctc tgagctggag cgtctgaagc tgcaagagac tgcttaccac gaactcgtgg  
 60  
 ccagacattt cctctccgaa ttcaaactg acagagctct gcctattgac cgtccgaaca  
 120  
 ccttgataa gtggtttctg attttgagag gacagcagag ggctgtatca cacaagacat  
 180  
 ttggcattag cctggaagag gtcctgggtga acgagtttac ccgccgcaag catcttgaac  
 240  
 tgaccagcca cgatgcaggt tgaagaagcc accggtcagg ctgcgggccg tcgtcgggga  
 300  
 aacgtggtgc gaaggggtgtt tggccgcac cggcgctttt tcagtcgcag gcggaatgag  
 360  
 cccaccttgc cccgggagtt cactcgccgt gggcgctcag gtgcagtgtc tgtggatagt  
 420  
 ctggctgagc tggaagacgg agccctgctg ctgcagaccc tgcagctttc aaaaatttcc  
 480  
 tttccaattg gccaacgact tctgggatcc aaaaggaaga tgagtctcaa tccgattgag  
 540  
 aaacaaatcc cccaggttgt tgaggcttgc tgccaattca ttgaaaaaca tggcttaagc  
 600  
 gcagtgggga tttttaccct tgaatactcc gtgcagcgag tgcgtcagct ccgtgaagaa  
 660

ttt gatcaag gtctggatgt agtgctggat gacaatcaga atgtgcatga tgtggctgca  
720  
ctcctcaagg agtttttccg tgacatgaag gattctctgc tgccagatga tctgtacatg  
780  
tcattcctcc tgacagcaac tttaaagccc caggatcagc tttctgccct gcagttgctg  
840  
gtctacctga cgccaccctg ccacagtgat accctggagc gtctgctgaa ggccctgcat  
900  
aaaatcactg agaactgcga ggactcaatt ggcatgatg gacagttggt cccaggcaac  
960  
cgtatgactt ccaactaactt ggcccttggtg tttggatctg ctctcctgaa aaaaggaaag  
1020  
tttggcaaga gagagtccag gaaaacaaag ctggggattg atcactatgt tgcttctgtc  
1080  
aatgtggtcc gtgccatgat tgataactgg gatgtcctct tccaggtgcc tccccatatt  
1140  
cagaggcagg ttgctaagcg cgtgtggaag tccagcccgg aagcacttga ttttatcaga  
1200  
cgcaggaact tgaggaagat ccagagtgcg cgcataaaga tggaagagga tgcactactt  
1260  
tctgatccag tggaaacctc tgctgaagcc cgggctgctg tccttgctca aagcaagcct  
1320  
tctgatgaag gtctctctga ggagccagct gtgccttccg gcaactgccg tccccatgac  
1380  
gatgaggaag gagcgggtaa cctctccatt ccggagcaag accgcccatt gctccgtgtg  
1440  
ccccgggaga aggaggccaa aactggcgct agctacttct ttccttagat gtttttccct  
1500  
ctataaggtg ccagacaggg gaaaagggtg ggggtacatc tgggatgtca caggaaacat  
1560  
taaggagaga gttgaaggta aagatctgaa ggtaagaagg agttccacct gatgctcggg  
1620  
tcaggatgag aattccaaac aactgccag ccccttccact ggggatgctt ggtctcttct  
1680  
gctggtaaaa gcagagatgt ttctgtgtca tgcccaagct ccccggtgct accttgccct  
1740  
tctcttttac cctgatctt ggctttctct ctctctctgc agactttcct ttaattgatg  
1800  
tgacatttgt ggtaaaccac tttcccaggg aacctcaca atcttgagat gctttccctt  
1860  
ccccaaatgg gattgcatga tttccctgac tttcctacce tcctccagag agctcagttg  
1920  
gaaaggccct caagaggcat gctagaacgt taggtcagcc tactgacagc tgacaaacaa  
1980  
ttaatgcgaa atcatgtcac accaaccat agccgtgtcc acgcagcaac tccaccacct  
2040  
taggatttcc cctccaaat tattcagacc aatggcttgc caaatggcct ctcccaaaat  
2100  
tctgtacagt tttgctcagg tcacgccaac agggaaacct caagtgtagg tctaattagt  
2160  
gtttctggga tccaaagtta gaggaaaatt tagattttat tgccctggatc tgctttaaag  
2220  
acaattgggtg ttacaccct cttgtcagca aaacagctag ttaggtaagg acatatagtt  
2280

ccaagtaggt aaagtcactt gattacaaat gttcttaact atcgtctctg taattccttt  
 2340  
 atacaggaca gtacaaaatt gtgggacatg ctctggtaac acacagatat ggggtgcata  
 2400  
 tgatccagaa ttacagctga tattatggat gacaactgct aagggtccata aaatgaagac  
 2460  
 tgtattgtat tgagggatag aaattgatca tttaatgggt aacaactgct gagctcaaag  
 2520  
 atttgtgatt gttaaaactt ctctggcatt taatcattaa taaacatctg tattgtgaca  
 2580  
 gcaaaaaaaaa aaaaaaaaaa aaaa  
 2604

&lt;210&gt; 976

&lt;211&gt; 411

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 976

Met	Gln	Val	Glu	Glu	Ala	Thr	Gly	Gln	Ala	Ala	Gly	Arg	Arg	Arg	Gly
1			5					10						15	
Asn	Val	Val	Arg	Arg	Val	Phe	Gly	Arg	Ile	Arg	Arg	Phe	Phe	Ser	Arg
			20					25					30		
Arg	Arg	Asn	Glu	Pro	Thr	Leu	Pro	Arg	Glu	Phe	Thr	Arg	Arg	Gly	Arg
		35					40				45				
Arg	Gly	Ala	Val	Ser	Val	Asp	Ser	Leu	Ala	Glu	Leu	Glu	Asp	Gly	Ala
	50					55				60					
Leu	Leu	Leu	Gln	Thr	Leu	Gln	Leu	Ser	Lys	Ile	Ser	Phe	Pro	Ile	Gly
65					70				75					80	
Gln	Arg	Leu	Leu	Gly	Ser	Lys	Arg	Lys	Met	Ser	Leu	Asn	Pro	Ile	Ala
			85					90					95		
Lys	Gln	Ile	Pro	Gln	Val	Val	Glu	Ala	Cys	Cys	Gln	Phe	Ile	Glu	Lys
			100				105						110		
His	Gly	Leu	Ser	Ala	Val	Gly	Ile	Phe	Thr	Leu	Glu	Tyr	Ser	Val	Gln
	115					120						125			
Arg	Val	Arg	Gln	Leu	Arg	Glu	Glu	Phe	Asp	Gln	Gly	Leu	Asp	Val	Val
	130					135					140				
Leu	Asp	Asp	Asn	Gln	Asn	Val	His	Asp	Val	Ala	Ala	Leu	Leu	Lys	Glu
145					150				155					160	
Phe	Phe	Arg	Asp	Met	Lys	Asp	Ser	Leu	Leu	Pro	Asp	Asp	Leu	Tyr	Met
			165					170					175		
Ser	Phe	Leu	Leu	Thr	Ala	Thr	Leu	Lys	Pro	Gln	Asp	Gln	Leu	Ser	Ala
		180						185					190		
Leu	Gln	Leu	Leu	Val	Tyr	Leu	Thr	Pro	Pro	Cys	His	Ser	Asp	Thr	Leu
	195					200					205				
Glu	Arg	Leu	Leu	Lys	Ala	Leu	His	Lys	Ile	Thr	Glu	Asn	Cys	Glu	Asp
	210					215					220				
Ser	Ile	Gly	Ile	Asp	Gly	Gln	Leu	Val	Pro	Gly	Asn	Arg	Met	Thr	Ser
225					230					235				240	
Thr	Asn	Leu	Ala	Leu	Val	Phe	Gly	Ser	Ala	Leu	Leu	Lys	Lys	Gly	Lys
			245					250						255	
Phe	Gly	Lys	Arg	Glu	Ser	Arg	Lys	Thr	Lys	Leu	Gly	Ile	Asp	His	Tyr
		260					265					270			
Val	Ala	Ser	Val	Asn	Val	Val	Arg	Ala	Met	Ile	Asp	Asn	Trp	Asp	Val

275                      280                      285  
 Leu Phe Gln Val Pro Pro His Ile Gln Arg Gln Val Ala Lys Arg Val  
 290                      295                      300  
 Trp Lys Ser Ser Pro Glu Ala Leu Asp Phe Ile Arg Arg Arg Asn Leu  
 305                      310                      315                      320  
 Arg Lys Ile Gln Ser Ala Arg Ile Lys Met Glu Glu Asp Ala Leu Leu  
 325                      330                      335  
 Ser Asp Pro Val Glu Thr Ser Ala Glu Ala Arg Ala Ala Val Leu Ala  
 340                      345                      350  
 Gln Ser Lys Pro Ser Asp Glu Gly Ser Ser Glu Glu Pro Ala Val Pro  
 355                      360                      365  
 Ser Gly Thr Ala Arg Ser His Asp Asp Glu Glu Gly Ala Gly Asn Pro  
 370                      375                      380  
 Pro Ile Pro Glu Gln Asp Arg Pro Leu Leu Arg Val Pro Arg Glu Lys  
 385                      390                      395                      400  
 Glu Ala Lys Thr Gly Val Ser Tyr Phe Phe Pro  
 405                      410

<210> 977  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 977  
 cgcgtagaagg gggccatcca gaggagcacg gagacggggcc tggcagtggga gatgcccagc  
 60  
 cggacactgc gccaggccag ccacgagtcc attgaggaca gcatgaacag ctatggctca  
 120  
 gaggggcaacc ttaactatgg aggagtttgc ctggcgctcg acgcccagtt cagtgaacttc  
 180  
 ctgggaagca tggggccggc acagttttgtg ggccgccaga ccctggccac cacacccatg  
 240  
 ggggatgtgg agatcggtct gcaggagcgg aacggtcagt tggaggtgga cattatccag  
 300  
 gctcggggac tgacagccaa gccaggctcc aagacactgc cagcggccta catcaaggcc  
 360  
 tacctgctag agatggca  
 378

<210> 978  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 978  
 Arg Val Lys Gly Ala Ile Gln Arg Ser Thr Glu Thr Gly Leu Ala Val  
 1                      5                      10                      15  
 Glu Met Pro Ser Arg Thr Leu Arg Gln Ala Ser His Glu Ser Ile Glu  
 20                      25                      30  
 Asp Ser Met Asn Ser Tyr Gly Ser Glu Gly Asn Leu Asn Tyr Gly Gly  
 35                      40                      45  
 Val Cys Leu Ala Ser Asp Ala Gln Phe Ser Asp Phe Leu Gly Ser Met  
 50                      55                      60  
 Gly Pro Ala Gln Phe Val Gly Arg Gln Thr Leu Ala Thr Thr Pro Met

65		70		75		80									
Gly	Asp	Val	Glu	Ile	Gly	Leu	Gln	Glu	Arg	Asn	Gly	Gln	Leu	Glu	Val
			85						90					95	
Asp	Ile	Ile	Gln	Ala	Arg	Gly	Leu	Thr	Ala	Lys	Pro	Gly	Ser	Lys	Thr
		100					105						110		
Leu	Pro	Ala	Ala	Tyr	Ile	Lys	Ala	Tyr	Leu	Leu	Glu	Met	Ala		
		115					120					125			

<210> 979  
 <211> 3500  
 <212> DNA  
 <213> Homo sapiens

<400> 979  
 nntttttttt ttccagggga aaatgcttta ttgagtaaag tatccgagga agtgatgcag  
 60  
 ggcaggtaaa cagctggtgc tcagcagcga gaggacgcgt cactctgccg ttctgcaggg  
 120  
 tgacgccctc cccgtacctc gctgagagcc acctgcagac acagcaggcc acagcagaat  
 180  
 gcacaggtca ctgttgtagg ggaacaaatc gtaatgccca gagaaaacct cagcctccca  
 240  
 aagtgtggtg attacaggcg tgagccacgg cgcttggcct ccttccttca cttttgaaat  
 300  
 taaagcctct ttgcaagtcc tgctctgaga aatggctcact gcacatggta aagaggccct  
 360  
 gagcccatg gccatctctc ttggtgaggg gtggcggggc cgggtgctgt ctgagatgcc  
 420  
 agctcaggag ggctccatcc tggtctgctt gcccagggc cggcgttccc ggaggggtcc  
 480  
 aggttcccgg ttctagtcct ggaaaggcag aaggagagag ggaagggaag ggtgggaggg  
 540  
 gcctctggga ggtgcagccc caccatgc cccacacccc gggactctc gcagacgggg  
 600  
 acacgtgtgg gagtgctcgc ggagcttcac atttcagggc cgtctcagcc agtgctctg  
 660  
 aagtggcgc agccttgggg ccaggttccc tcctgagtc acctgggcca cattgtctcc  
 720  
 acggtgcaca ctccagcaca agaatggctc agccttgatc ccccaaactg ggcaccgtcc  
 780  
 ctgcatgtag gtgtgtgggg gggcctcagc agcagacggg gccatggggc tctggtgggg  
 840  
 cactcggtc ctgctcctgg gacgagctcc ggggggccct ggtggcattg gcccgacag  
 900  
 agatatggtc ccagcctccc ccgatgccgt agtcccagcc gtggcccttg ggctcgtgag  
 960  
 gctgcacgcc ggtgcgatga cacactgtcc cccggctcag gctgtggctg ccctgcactt  
 1020  
 tgttggcgat caccagacc tgggtccaggg gcccacgga cactcggcac acgttgttgg  
 1080  
 acacgtgctc ccagctggag ccctgcgggt agctgggctg gatcccttgg cgataccaca  
 1140  
 ggtttccatt ctcatccagg gcatacacc agctctgccc cgcgacacc tgcttcagcc  
 1200

tctgtctcgg tggggacggg atgtggtacc agcagtcacc ggctggctgc gaggggtaca  
1260  
cggatccccg gtagaaggcg gagccgtccc ttgccacggc ccacacctgg tagcaggccc  
1320  
cgatggagat ggaggcgaag agctggctcg tgccaacgtg cagccaggag gagccccgag  
1380  
ggttgagctc cgacacgccc aggcggcaca gcacatcccc cttgtcgtcg acggcccaga  
1440  
gggcgatgct gtgcccactc ccctcggcac cggggctctc cgggatgatg gacacgtccc  
1500  
tgagggcgat ggggggcacc tccagccagg gccactggt caccagcttg cattttctgg  
1560  
cccagcacct cctcctcaca aaatccttca tcgttttga cccatggtat gaggcagga  
1620  
agtcgctggc atactgccac ccctcctggt ccgtgcccc cggaacgctg aaatccacga  
1680  
accagtcgga aaccaggcc cactgcaggg acgggggctt cgtgccagcc ttcgtgact  
1740  
cctgcagccc cgaggcatcg ctccacatgt accggtccgt gggcagacct ctgctggtgt  
1800  
agcctgtgac ggggttccag cgctggttct catagatgtg aacacacttc acgtctgact  
1860  
gcgtgtagat gttactggtg ctgctggcca ggccttgga gcagccgct ccatagccgc  
1920  
ctgtgtatac ccaggccgtg tggcatagc cgatgcccc caccagccc cggctgttgg  
1980  
cctccaccat ccgcagggtg cctcccattt gccgcaaaa catctggtcg cagggcaggg  
2040  
ggtgctcgtg ggcctccagg tctgggtggg ctcgctcacg aagatgtccc ccttgagggt  
2100  
gatggaccag atggcctgcg gggacgggag gccctgcacc ttccggctct cgcagcaaga  
2160  
caggctgagc agggcgagcc agtcattcat gtcctgctcg gtggcagcag ccagacgcac  
2220  
cgccacctc tgccgtgtcc gctcaggggt gtacagggca aaggagtgt tggctctggt  
2280  
cagcactggg accagcgcca ccacctcatt caggaatatg tggatgtact tcttctctc  
2340  
gtggaccaca tagtagatga agaggatgct gtcccgagc ccgtcgtgcc ccgtgaactg  
2400  
ctccagggcc aagcgacgt ccacccactt gtggggcttc cagtcgcacc accactgcag  
2460  
cgccccggtc ttcaccaca ccgactgtc cagggcctgc tcgtagtgtc tgaagttctc  
2520  
cagctccccg ttggtccttt ccgtgagctg ctggaagatc tgcttctcc aggcagcgg  
2580  
ctgggccggc gtgatggaca gggacagcat gtgtaccgag gaggacaggc ctgtggggca  
2640  
gagagagcct cagggccggg gcaactgtct gcccgagct gggcaggaag ccacggcgct  
2700  
ccctccacc aaatcagccc tttctagctc aaaagctacg ctctctgtta agcctcttc  
2760  
cacccttgc cctgatggat gagttgctct ccccagtaa ttcagcctgg aaagcagcca  
2820



ccaccgctag cacaggggag gggctgcaga caggggaagg ggcactggcc accgtgcttc  
 2880  
 caggtcctga cagcctcggg ctggtctctg gaggccacag aggagcgcaa tgcctggctc  
 2940  
 agagctgctg agcacagtga ggcgtccagg gaggacagca ggcctgcccg agccccctga  
 3000  
 ccccggcctc ctccacacacc ccacaccccc agggcacctg gccatgtgga tgcccccagg  
 3060  
 ccctgcagga gcccttacct gcctggacag tgaaccatct gggcatggca catgcctcca  
 3120  
 ccacgcagcc gcctcccgac acccaggccc acagcgggtg gtcattccacc ccatacggct  
 3180  
 cctccaagcc cagtgggagg agccccagag aggagaggct ggtgggtctcg gggaagccag  
 3240  
 cggccgagtg gctgggcact ttcttggcct ccttgaggctc aatattggctc cagggcagct  
 3300  
 cggccgggggt gggggccggg ccgggggtgcg tgttgggtct ggcctccctg ctgccctcgg  
 3360  
 ctgggcaggc atcttccacg gtatcttctg cggctcctgcc agcccccagg cctgaggctg  
 3420  
 agttccctgt ggcattcttg gaatcgtcta gaggttctgc agggagaatc tggccaggcc  
 3480  
 ctggtctctc gacttccgag  
 3500

&lt;210&gt; 980

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 980

Met	Ser	Cys	Ser	Pro	Pro	Val	Ile	Gln	Pro	Gly	Lys	Gln	Pro	Pro	Pro
1				5				10					15		
Leu	Ala	Gln	Gly	Arg	Gly	Cys	Arg	Gln	Gly	Lys	Gly	His	Trp	Pro	Pro
		20					25					30			
Cys	Phe	Gln	Val	Leu	Thr	Ala	Ser	Gly	Trp	Ser	Leu	Glu	Ala	Thr	Glu
		35				40					45				
Glu	Arg	Asn	Ala	Trp	Leu	Arg	Ala	Ala	Glu	His	Ser	Glu	Ala	Ser	Arg
	50					55					60				
Glu	Asp	Ser	Arg	Pro	Ala	Arg	Ala	Pro							
65					70										

&lt;210&gt; 981

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 981

nacgcgtacg cggactcgac ggcagtggct ggcccgttg cggccgcgcc cgacccccac  
 60  
 gcctgggact tgtgcgagcg ccactccgcc cacatcacag cgccggtggg gtgggagctg  
 120  
 gttcgcgtcg agcacgtcga gcttgacgac gaagacgtgg acgacgagaa caccgacatc  
 180

accgcactcg cggaggcggg tgcgcgaggg ggggcgggta accaccggtt tggaggagac  
 240  
 cggccaggat ccgatcgagt actcggcaga caaagacttc aacaaccag acacctccaa  
 300  
 ccatccggtg caccggacca agcgtgtgga ggaacagcta gcggcgcaca aggcggcgcg  
 360  
 ccgctccac ctgcgcattg tcccggatcc gaaccgggac gcgt  
 404

<210> 982

<211> 134

<212> PRT

<213> Homo sapiens

<400> 982

Xaa	Ala	Tyr	Ala	Asp	Ser	Thr	Ala	Val	Val	Gly	Pro	Leu	Ala	Pro	Ala
1				5					10					15	
Pro	Asp	Pro	His	Ala	Trp	Asp	Leu	Cys	Glu	Arg	His	Ser	Ala	His	Ile
			20				25						30		
Thr	Ala	Pro	Val	Gly	Trp	Glu	Leu	Val	Arg	Val	Glu	His	Val	Glu	Leu
		35				40					45				
Asp	Asp	Glu	Asp	Val	Asp	Asp	Glu	Asn	Thr	Asp	Ile	Thr	Ala	Leu	Ala
	50				55					60					
Glu	Ala	Gly	Ala	Arg	Gly	Gly	Ala	Gly	Asn	His	Arg	Phe	Gly	Gly	Asp
65				70					75					80	
Arg	Pro	Gly	Ser	Asp	Arg	Val	Leu	Gly	Arg	Gln	Arg	Leu	Gln	Gln	Pro
			85					90					95		
Arg	His	Leu	Gln	Pro	Ser	Gly	Ala	Pro	Asp	Gln	Ala	Cys	Gly	Gly	Thr
		100					105					110			
Ala	Ser	Gly	Ala	Gln	Gly	Gly	Ala	Pro	Leu	Pro	Pro	Ala	His	Cys	Pro
		115					120					125			
Gly	Ser	Glu	Pro	Gly	Arg										
		130													

<210> 983

<211> 579

<212> DNA

<213> Homo sapiens

<400> 983

ctttctccca tggctgccac ctgcctcaac aaaagccaaa gccctcacca tggcccaaag  
 60  
 accctacata atctgggtcc ctttacctct cttaccttgt ctctatcac tetcaatate  
 120  
 actcactctt ctccagctac actggcctcc ttgctgttcc ccaagcgtgc tagataccct  
 180  
 tccttttcag ggcctttgta cttgtttctt tcaactgctg aaacaccctt cctcctaaat  
 240  
 aatctgatga gttgccctag tacttccagt gtgctcaaat gtcacctccc tagagaagtg  
 300  
 tttcctgata aacatatcta aaatcgcccc atcacatgca ttttatatcc ctttatecta  
 360  
 atttatgtat gtttttctac aaagcactga tcaccacctg gtatatattta tattttattta  
 420

ttgtgggttag tggtcgtctc tcttcagtag actgtaagct ccataaagca gggacttctg  
 480  
 ttttgttcac tgctgtatcc ccagtgccaa aaacaacagt gcatagtaga tactcaataa  
 540  
 atatttgtgg aataaactga aaaaaaaaaa aaaaaaaaaa  
 579

<210> 984  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 984  
 Met Ala Ala Thr Cys Leu Asn Lys Ser Gln Ser Pro His His Gly Pro  
 1 5 10 15  
 Lys Thr Leu His Asn Leu Gly Pro Phe Thr Ser Leu Thr Leu Ser Pro  
 20 25 30  
 Ile Thr Leu Asn Ile Thr His Ser Ser Pro Ala Thr Leu Ala Ser Leu  
 35 40 45  
 Leu Phe Pro Lys Arg Ala Arg Tyr Pro Ser Phe Ser Gly Pro Leu Tyr  
 50 55 60  
 Leu Phe Phe Ser Leu Pro Glu Thr Pro Phe Leu Leu Asn Asn Leu Met  
 65 70 75 80  
 Ser Cys Pro Ser Thr Ser Ser Val Leu Lys Cys His Leu Pro Arg Glu  
 85 90 95  
 Val Phe Pro Asp Gln His Ile  
 100

<210> 985  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 985  
 acgcgtccct caaggtgaaa tgaatggcct tgctgtcacg gtacatacta agcttgataa  
 60  
 aaagcaacaa cttggcaata ttcaaagtag ttactctgct aagaacatcg atgtggcaaa  
 120  
 ctttaaagct catgatctta aacttggtcac agaaattaat catttagaca accagatctt  
 180  
 tattgattat gcaaaattga ttaaagaatc cgatgcgctg ccagtagatc aacaagtcgc  
 240  
 gtttttctta aataatatgc aaagtattat tgacggaaag cctgagctaa atataacaga  
 300  
 gttgagcggg ttc  
 313

<210> 986  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 986  
 Met Asn Gly Leu Ala Val Thr Val His Thr Lys Leu Asp Lys Lys Gln

1		5		10		15									
Gln	Leu	Gly	Asn	Ile	Gln	Met	Ser	Tyr	Ser	Ala	Lys	Asn	Ile	Asp	Val
		20						25					30		
Ala	Asn	Phe	Lys	Ala	His	Asp	Leu	Lys	Leu	Val	Thr	Glu	Ile	Asn	His
		35					40					45			
Leu	Asp	Asn	Gln	Ile	Phe	Ile	Asp	Tyr	Ala	Lys	Leu	Ile	Lys	Glu	Ser
	50					55				60					
Asp	Ala	Leu	Pro	Val	Asp	Gln	Gln	Val	Ala	Phe	Phe	Leu	Asn	Asn	Met
65					70				75					80	
Gln	Ser	Ile	Ile	Asp	Gly	Lys	Pro	Glu	Leu	Asn	Ile	Thr	Glu	Leu	Ser
			85					90					95		

Gly Phe

&lt;210&gt; 987

&lt;211&gt; 4224

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 987

```

nnttttggat tcttactgta gctctatctc atttatccat catagcgtcc cggggagatg
60
gggtcaggag atagcagtgc caaccacta gcaagggctt gactggtata tatcacatga
120
tccccaaagg cataacatga agtctgtatt atccccacat atgcagaagg aaggcttgga
180
gaagcaatct gaccaagatc acatcccttt ttttttttcg gagatggagg gggagtctca
240
ctgtgttacc ccagctagtc ttgaactcct ggcctcaggg atccacctgc ctcagcccc
300
caagtagctg ggattacaag tgctagccac tgaacctggc cagaatcaca tcatttttaa
360
atggctgaac taggatttaa acccatgtct gattaaacat cccaagatgt tttccatgg
420
aagtctgtgt caatcgttag ttccctgaag gaaggcttaa tctagcaaca gtattttctg
480
tatctactcc cctggtttct cccacagag ctagggccat gagtaccttg ttttgactg
540
gaaggagctg tggggtggac cgtttccctg aaagctagaa gaatgtttga agcctgttcc
600
caaggaccct tgaacatctg tgaagaaatg actattctgc atggaggctt cttgctggcc
660
gagcagctgt tccaccctaa ggcactggca gaattaacaa agtctgactg ggaacgtgtt
720
ggacggccca tcgtgggggc cttaaggagg atctcctcgg ctgcagcaca ctcccagccc
780
tttgcttga agaagaaagc cctgatcatc atctgggcca aggttctgca gccgcacccc
840
gtgaccccggt ccgacacaga gacacggtgg caggaagacc tggtcttctc ggtgggcaac
900
atgatcccca ccatcaacca caccatcctc ttcgagctgc tcaaaccctt ggaagcttct
960
ggactcttta tccagctcct gatggccctg cccaccacca tctgccatgc agaactagag
1020

```

cgttttctgg aacatgtgac cgttgacact tctgccgaag acgtggcctt cttcctggac  
1080  
gtctgggtggg aggtgatgaa gcacaagggg caccgcagg acccctgct ctcccagttt  
1140  
agtgcaatgg ccataagta cctgcctgcc ttagatgagt tccccatcc tccaaagagg  
1200  
cttaggtcag acccagacgc gtgccccacc atgcccctgt tggccatgct gctccgcggg  
1260  
ctgacacaga tccagagtcg gatcctgggc ccggggagga agtgctgtgc gctggccaac  
1320  
ctggctgaca tgctgactgt gtttgctgtg acagaggacg acccccagga ggtgtctgca  
1380  
accgtgtatc tggacaaact ggccacgggt atctctgtgt ggaactcgga caccagaat  
1440  
ccctaccacc agcaggcgct ggcagagaag gtgaaggagg cagaacggga tgtcagcctg  
1500  
acctcgctgg ccaaactccc cagtgagacc attttcgtgg gctgcgagtt cctgcaccac  
1560  
ctgctgcggg agtgggggga ggagttgcag gccgtgctcc gcagcagcca ggggacaagt  
1620  
tacgacagct accggctgtg cgacagtctg acttccttca gccagaacgc gacgctctac  
1680  
ctgaaccgca ccagcctgtc caaggaggac aggcagggtg tctctgagct ggcggagtgt  
1740  
gtcagggact tcctgaggaa aacgagcacg gtgctgaaga acagggcctt ggaggatata  
1800  
acagcttcca ttgccatggc cgtcatccag cagaagatgg accgccatat ggaagtgtgc  
1860  
tacatttttg cctctgagaa gaagtgggccc ttctcggacg agtgggtagc ctgcctgggg  
1920  
agtaacaggg cctcttccg agagccagac ttggtgttga ggctgctgga aacagtgata  
1980  
gacgtcagca cagctgacag agccatccct gagtctcaga tccggcagggt gatccacctg  
2040  
atcctggaat gttacgcaga cctctccctg ccaggtaaaa ataaagtcct tgcaggatcc  
2100  
ctgcgttcct gggggcgaaa gggcctctct gaaaagttgc tggcttatgt ggagggtttt  
2160  
caggaagacc tcaatacaac ttttaaccag ctcaactcaga gtgcctccga acagggcttg  
2220  
gcaaaagctg tggcctccgt ggcccgcctg gtcatagtgc acccggaagt cacggtgaag  
2280  
aaaatgtgca gcctggctgt ggtcaatctc ggcaccaca agttcctggc ccagattctc  
2340  
actgccttcc ctgccttag gtttgtggaa gtgcagggtc ccaattcatc tgccactttc  
2400  
atggtgtcat gcctcaaaga aaccgtctgg atgaagttct ctacacccaa ggaagaaaag  
2460  
caatttttag agctcctgaa ctgcctgatg agtcccgtga aacccaagg gattccagtg  
2520  
gctgctcttc ttgagccaga cgagggtctg aaggaatttg tctgccttt cttgaggtta  
2580  
gatgttgaag aggtagacct cagtctgagg atcttcatcc agactctaga ggcaaacgcg  
2640

tgccgagagg aatactggct ccagacctgc tccccgtttc cactcctctt cagcttgtgc  
2700  
cagctcttgg accgcttcag caaatactgg cagcttccca aggagaagcg gtgcctctct  
2760  
ttggatagga aggatctagc gatccatata ctggagctcc tgtgtgagat tgtatcagcc  
2820  
aatgctgaga ccttctcccc ggatgtctgg atcaagtccc tgtcctggct ccaccgcaag  
2880  
ttagaacagc tagactggac tgtgggcctg aggctgaaga gcttcttcga ggggcacttc  
2940  
aagtgtgaag tgccagccac actttttgag atctgtaagc tttcagaaga cgagtggacc  
3000  
tcccaggccc acccagggtg cggggctggc acggggctcc tggcctggat ggagtgtgc  
3060  
tgcgtctcca gcggcatctc ggagaggatg ctgtctctct tgggtggtgga cgtgggcaat  
3120  
cctgaggagg tcagactgtt cagcaaaggc tttctggtgg ccctggtgca agtcatgcct  
3180  
tggtgcagcc ctcaggagtg gcagcgcctt caccagctga ccaggagact gctggagaag  
3240  
cagctcctcc atgtccctta tagcctggaa tatattcagt ttgttcccc tctcaacctg  
3300  
aagccctttg cccaggagtt gcaactctcc gtctcttccc tgaggacttt ccagtttctc  
3360  
tgcagccata gctgtcgtaa ttggcttccc ctggaaggct ggaaccacgt ggtcaaactc  
3420  
ctctgtggca gtctgacctg cctcctggac tcagtcaggg cgatacaggc agctggccct  
3480  
tgggttcaag gaccagagca ggacctgacc caggaagccc tgtttggtta ccccagggtg  
3540  
ttctgcatg ctctgcacat catggccatg ctccacctgg aggtctgtga gccactctac  
3600  
gttttagcct tggaaaccct cacctgctat gagactttga gcaagaccaa cccttctgtc  
3660  
agctccttgc tccagagggc acacgagcag tgcttcttaa agtccattgc tgagggcatc  
3720  
ggcctgaag aacggcgcca aaccctgttg cagaagatga gcagcttctg acttggcggtg  
3780  
gggagctggg ccccaacatg gcgggtctgc agaagatcag cagcttctta cctgtgcggg  
3840  
agcgaaaaag ctgggcttca acatggcagg tctgtagggg tcagacctga gcagcctgga  
3900  
ctttacagtt atgtgaaact gtccacaaaa agtcatggca ataatggtgt aaagaaaata  
3960  
gtttcttggg tatttgtaac gtacaaaacta tcataaaaat tctcctcttt cgcactctac  
4020  
tttgtctctt ctaagtcggc ctcagcaata gcccaggatt aaatatgtct tgaaattggg  
4080  
tttagtgtct tcaagatcaa atccagccgg gaggaacatg ttcataactg gacttttcca  
4140  
tcctagattt tggcaaataa gcccagaagt gaaaccatgt gagtggaaaa agcattacat  
4200  
ggtacgtata acccccaaaa aaaa  
4224

<210> 988  
 <211> 873  
 <212> PRT  
 <213> Homo sapiens

<400> 988

Ala	His	Lys	Tyr	Leu	Pro	Ala	Leu	Asp	Glu	Phe	Pro	His	Pro	Pro	Lys
1				5					10					15	
Arg	Leu	Arg	Ser	Asp	Pro	Asp	Ala	Cys	Pro	Thr	Met	Pro	Leu	Leu	Ala
			20					25					30		
Met	Leu	Leu	Arg	Gly	Leu	Thr	Gln	Ile	Gln	Ser	Arg	Ile	Leu	Gly	Pro
			35				40					45			
Gly	Arg	Lys	Cys	Cys	Ala	Leu	Ala	Asn	Leu	Ala	Asp	Met	Leu	Thr	Val
			50			55					60				
Phe	Ala	Leu	Thr	Glu	Asp	Asp	Pro	Gln	Glu	Val	Ser	Ala	Thr	Val	Tyr
65					70					75					80
Leu	Asp	Lys	Leu	Ala	Thr	Val	Ile	Ser	Val	Trp	Asn	Ser	Asp	Thr	Gln
			85						90					95	
Asn	Pro	Tyr	His	Gln	Gln	Ala	Leu	Ala	Glu	Lys	Val	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Asp	Val	Ser	Leu	Thr	Ser	Leu	Ala	Lys	Leu	Pro	Ser	Glu	Thr	Ile
			115					120					125		
Phe	Val	Gly	Cys	Glu	Phe	Leu	His	His	Leu	Leu	Arg	Glu	Trp	Gly	Glu
			130			135						140			
Glu	Leu	Gln	Ala	Val	Leu	Arg	Ser	Ser	Gln	Gly	Thr	Ser	Tyr	Asp	Ser
145					150					155					160
Tyr	Arg	Leu	Cys	Asp	Ser	Leu	Thr	Ser	Phe	Ser	Gln	Asn	Ala	Thr	Leu
				165					170					175	
Tyr	Leu	Asn	Arg	Thr	Ser	Leu	Ser	Lys	Glu	Asp	Arg	Gln	Val	Val	Ser
			180					185					190		
Glu	Leu	Ala	Glu	Cys	Val	Arg	Asp	Phe	Leu	Arg	Lys	Thr	Ser	Thr	Val
			195				200					205			
Leu	Lys	Asn	Arg	Ala	Leu	Glu	Asp	Ile	Thr	Ala	Ser	Ile	Ala	Met	Ala
			210			215						220			
Val	Ile	Gln	Gln	Lys	Met	Asp	Arg	His	Met	Glu	Val	Cys	Tyr	Ile	Phe
225					230					235					240
Ala	Ser	Glu	Lys	Lys	Trp	Ala	Phe	Ser	Asp	Glu	Trp	Val	Ala	Cys	Leu
				245					250					255	
Gly	Ser	Asn	Arg	Ala	Leu	Phe	Arg	Glu	Pro	Asp	Leu	Val	Leu	Arg	Leu
			260					265					270		
Leu	Glu	Thr	Val	Ile	Asp	Val	Ser	Thr	Ala	Asp	Arg	Ala	Ile	Pro	Glu
			275				280					285			
Ser	Gln	Ile	Arg	Gln	Val	Ile	His	Leu	Ile	Leu	Glu	Cys	Tyr	Ala	Asp
			290			295					300				
Leu	Ser	Leu	Pro	Gly	Lys	Asn	Lys	Val	Leu	Ala	Gly	Ile	Leu	Arg	Ser
305					310					315					320
Trp	Gly	Arg	Lys	Gly	Leu	Ser	Glu	Lys	Leu	Leu	Ala	Tyr	Val	Glu	Gly
				325					330					335	
Phe	Gln	Glu	Asp	Leu	Asn	Thr	Thr	Phe	Asn	Gln	Leu	Thr	Gln	Ser	Ala
			340					345					350		
Ser	Glu	Gln	Gly	Leu	Ala	Lys	Ala	Val	Ala	Ser	Val	Ala	Arg	Leu	Val
			355				360					365			
Ile	Val	His	Pro	Glu	Val	Thr	Val	Lys	Lys	Met	Cys	Ser	Leu	Ala	Val

370 375 380  
 Val Asn Leu Gly Thr His Lys Phe Leu Ala Gln Ile Leu Thr Ala Phe  
 385 390 395 400  
 Pro Ala Leu Arg Phe Val Glu Val Gln Gly Pro Asn Ser Ser Ala Thr  
 405 410 415  
 Phe Met Val Ser Cys Leu Lys Glu Thr Val Trp Met Lys Phe Ser Thr  
 420 425 430  
 Pro Lys Glu Glu Lys Gln Phe Leu Glu Leu Leu Asn Cys Leu Met Ser  
 435 440 445  
 Pro Val Lys Pro Gln Gly Ile Pro Val Ala Ala Leu Leu Glu Pro Asp  
 450 455 460  
 Glu Val Leu Lys Glu Phe Val Leu Pro Phe Leu Arg Leu Asp Val Glu  
 465 470 475 480  
 Glu Val Asp Leu Ser Leu Arg Ile Phe Ile Gln Thr Leu Glu Ala Asn  
 485 490 495  
 Ala Cys Arg Glu Glu Tyr Trp Leu Gln Thr Cys Ser Pro Phe Pro Leu  
 500 505 510  
 Leu Phe Ser Leu Cys Gln Leu Leu Asp Arg Phe Ser Lys Tyr Trp Gln  
 515 520 525  
 Leu Pro Lys Glu Lys Arg Cys Leu Ser Leu Asp Arg Lys Asp Leu Ala  
 530 535 540  
 Ile His Ile Leu Glu Leu Leu Cys Glu Ile Val Ser Ala Asn Ala Glu  
 545 550 555 560  
 Thr Phe Ser Pro Asp Val Trp Ile Lys Ser Leu Ser Trp Leu His Arg  
 565 570 575  
 Lys Leu Glu Gln Leu Asp Trp Thr Val Gly Leu Arg Leu Lys Ser Phe  
 580 585 590  
 Phe Glu Gly His Phe Lys Cys Glu Val Pro Ala Thr Leu Phe Glu Ile  
 595 600 605  
 Cys Lys Leu Ser Glu Asp Glu Trp Thr Ser Gln Ala His Pro Gly Tyr  
 610 615 620  
 Gly Ala Gly Thr Gly Leu Leu Ala Trp Met Glu Cys Cys Val Ser  
 625 630 635 640  
 Ser Gly Ile Ser Glu Arg Met Leu Ser Leu Leu Val Val Asp Val Gly  
 645 650 655  
 Asn Pro Glu Glu Val Arg Leu Phe Ser Lys Gly Phe Leu Val Ala Leu  
 660 665 670  
 Val Gln Val Met Pro Trp Cys Ser Pro Gln Glu Trp Gln Arg Leu His  
 675 680 685  
 Gln Leu Thr Arg Arg Leu Leu Glu Lys Gln Leu Leu His Val Pro Tyr  
 690 695 700  
 Ser Leu Glu Tyr Ile Gln Phe Val Pro Leu Leu Asn Leu Lys Pro Phe  
 705 710 715 720  
 Ala Gln Glu Leu Gln Leu Ser Val Leu Phe Leu Arg Thr Phe Gln Phe  
 725 730 735  
 Leu Cys Ser His Ser Cys Arg Asn Trp Leu Pro Leu Glu Gly Trp Asn  
 740 745 750  
 His Val Val Lys Leu Leu Cys Gly Ser Leu Thr Arg Leu Leu Asp Ser  
 755 760 765  
 Val Arg Ala Ile Gln Ala Ala Gly Pro Trp Val Gln Gly Pro Glu Gln  
 770 775 780  
 Asp Leu Thr Gln Glu Ala Leu Phe Val Tyr Thr Gln Val Phe Cys His  
 785 790 795 800  
 Ala Leu His Ile Met Ala Met Leu His Pro Glu Val Cys Glu Pro Leu



```

<400> 990
Ala Trp Asp Ile Asp Thr Arg Leu Glu Gln Ala Met Asp Ala Leu Gln
 1             5             10             15
Cys Pro Pro Gly Asp Thr Pro Val Asp Val Leu Ser Gly Gly Glu Arg
      20             25             30
Arg Arg Val Ala Leu Cys Lys Leu Leu Ile Glu Gln Pro Asp Leu Leu
      35             40             45
Leu Leu Asp Glu Pro Thr Asn His Leu Asp Ala Glu Ser Val Asn Trp
 50             55             60
Leu Glu Gly His Leu Lys Ser Tyr Pro Gly Ala Val Leu Ala Val Thr
65             70             75             80
His Asp Arg Tyr Phe Leu Asp His Val Ala Glu Trp Ile Cys Glu Val
      85             90             95
Asp Arg Gly Gln Leu His Pro Tyr Glu Gly Asn Tyr Ser Thr Tyr Leu
      100            105            110
Asp Thr Lys Arg Lys Arg Leu Gln Ile Glu Gly Lys Lys Asp Ala Lys
      115            120            125
Arg Ala Lys Ile Leu Glu

```

130

<210> 991  
 <211> 359  
 <212> DNA  
 <213> Homo sapiens

<400> 991  
 tctagaatta aagccaaaaa aactcaggct gaagtggcag aagctgtaaa gatgtcgcaa  
 60  
 cccgcctatc aggcttttaga gtcagggaaa aattttaaatt ctgcatttct tcctttaatt  
 120  
 gcccaatttt taggagtaga tggttattgg ttaacgacgg ggaatactga agattctttt  
 180  
 agagaaagtg atgtatttag cccgactgta gtgagtgcag aatctactga tcagtatgtt  
 240  
 tggattgaag ttgtagaagc taacttttct tgcgggacag gtgaatctat tgaatttcac  
 300  
 tttgatgcta ttaatggaaa aattccattc cctgcttcat tctttaaaga aaaacgcgt  
 359

<210> 992  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 992  
 Ser Arg Ile Lys Ala Lys Lys Thr Gln Ala Glu Val Ala Glu Ala Val  
 1 5 10 15  
 Lys Met Ser Gln Pro Ala Tyr Gln Ala Leu Glu Ser Gly Lys Asn Leu  
 20 25 30  
 Lys Ser Ala Phe Leu Pro Leu Ile Ala Gln Phe Leu Gly Val Asp Gly  
 35 40 45  
 Tyr Trp Leu Thr Thr Gly Asn Thr Glu Asp Ser Phe Arg Glu Ser Asp  
 50 55 60  
 Val Phe Ser Pro Thr Val Val Ser Ala Glu Ser Thr Asp Gln Tyr Val  
 65 70 75 80  
 Trp Ile Glu Val Val Glu Ala Asn Phe Ser Cys Gly Thr Gly Glu Ser  
 85 90 95  
 Ile Glu Phe His Phe Asp Ala Ile Asn Gly Lys Ile Pro Phe Pro Ala  
 100 105 110  
 Ser Phe Phe Lys Glu Lys Arg  
 115

<210> 993  
 <211> 450  
 <212> DNA  
 <213> Homo sapiens

<400> 993  
 ngcgcgccgg gcaccacata cgacgacggg acgttattca cctctaactg gtagccgccg  
 60  
 tcgcgggtccg gatccgcgat gatggccgcg tggcctgaag caatggggta ggtgcccgtg  
 120

atgcgtcgct ttggcgcacg aggtttacgc cgtggggagt tcataaggga aataccagca  
 180  
 cagggtcgga ccagttgtta cgatcgctgc atgatctact tgcgcagga ttatatcggt  
 240  
 gagctaccca agcaacatat ctgcgtggga aagtttgatc ccgacaatat tcctcgggac  
 300  
 ccgaacgaac tgtttgccac gtggtttaaa gaagccgttg agaacgaagt cggcgaccct  
 360  
 actgcggtca ccgtggccac ggtggacgac aacggtcagc ccgatgcgcg agtcgtcgac  
 420  
 cttctgtacc tcaactccga cggcttccac  
 450

<210> 994

<211> 110

<212> PRT

<213> Homo sapiens

<400> 994

Met	Arg	Arg	Phe	Gly	Ala	Arg	Gly	Leu	Arg	Arg	Gly	Glu	Phe	Ile	Arg
1				5				10					15		
Glu	Ile	Pro	Ala	Gln	Gly	Arg	Thr	Ser	Cys	Tyr	Asp	Arg	Cys	Met	Ile
			20					25					30		
Tyr	Leu	Ser	Gln	Asp	Tyr	Ile	Gly	Glu	Leu	Pro	Lys	Gln	His	Ile	Ser
			35				40					45			
Leu	Gly	Lys	Phe	Asp	Pro	Asp	Asn	Ile	Pro	Ala	Asp	Pro	Asn	Glu	Leu
	50					55				60					
Phe	Ala	Thr	Trp	Phe	Lys	Glu	Ala	Val	Glu	Asn	Glu	Val	Gly	Asp	Pro
65					70					75				80	
Thr	Ala	Val	Thr	Val	Ala	Thr	Val	Asp	Asn	Gly	Gln	Pro	Asp	Ala	
			85					90					95		
Arg	Val	Val	Asp	Leu	Leu	Tyr	Leu	Asn	Ser	Asp	Gly	Phe	His		
			100					105					110		

<210> 995

<211> 924

<212> DNA

<213> Homo sapiens

<400> 995

cgaggagctgg tggaccagga cgtgcagcct gcccgtacc acatgcctt tgggcccggtg  
 60  
 gtggatggcg acgtggctcc cgatgaccct gagatcctca tgcagcaggg agaattcctc  
 120  
 aactacgaca tgctcatcgg cgtcaaccag ggagagggcc tcaagttcgt ggaggactct  
 180  
 gcagagagcg aggacgggtg gtctgccagc gcctttgact tcaactgtct caactttgtg  
 240  
 gacaacctgt atggctaccc ggaaggcaag gatgtgcttc gggagaccat caagtttatg  
 300  
 tacacagact gggccgaccg ggacaatggc gaaatgcgcc gaaaaccct gctggcgctc  
 360  
 ttactgacc accaatgggt ggcaccagct gtggccactg ccaagctgca cgccgactac  
 420

cagtctcccg tctactttta caccttctac caccactgcc aggcggaggg ccggcctgag  
 480  
 tgggcagatg cggcgacacgg ggatgaactg ccctatgtct ttggcgtgcc catggtgggt  
 540  
 gccaccgacc tcttccctg taacttctcc aagaatgacg tcatgctcag tgccgtggtc  
 600  
 atgacctact ggaccaactt cgccaagact ggggacccca accagccggt gccgcaggat  
 660  
 accaagttca tccacaccaa gcccaatcgc ttcgaggagg tgggtgtggag caaattcaac  
 720  
 agcaaggaga agcagtatct gcacataggc ctgaagccac gcgtgctga caactaccgc  
 780  
 gccacaagg tggccttctg gctggagctc gtgccccacc tgcacaacct gcacacggag  
 840  
 ctcttcacca ccaccacgag cctgcctccc tacgccacgc gctggccgcc tcgtccccc  
 900  
 gctggcgccc cgggcacacg ccgg  
 924

<210> 996

<211> 308

<212> PRT

<213> Homo sapiens

<400> 996

Arg	Glu	Leu	Val	Asp	Gln	Asp	Val	Gln	Pro	Ala	Arg	Tyr	His	Ile	Ala
1				5				10						15	
Phe	Gly	Pro	Val	Val	Asp	Gly	Asp	Val	Val	Pro	Asp	Asp	Pro	Glu	Ile
		20						25					30		
Leu	Met	Gln	Gly	Glu	Phe	Leu	Asn	Tyr	Asp	Met	Leu	Ile	Gly	Val	
		35				40					45				
Asn	Gln	Gly	Glu	Gly	Leu	Lys	Phe	Val	Glu	Asp	Ser	Ala	Glu	Ser	Glu
	50					55					60				
Asp	Gly	Val	Ser	Ala	Ser	Ala	Phe	Asp	Phe	Thr	Val	Ser	Asn	Phe	Val
65				70						75				80	
Asp	Asn	Leu	Tyr	Gly	Tyr	Pro	Glu	Gly	Lys	Asp	Val	Leu	Arg	Glu	Thr
			85						90					95	
Ile	Lys	Phe	Met	Tyr	Thr	Asp	Trp	Ala	Asp	Arg	Asp	Asn	Gly	Glu	Met
		100						105					110		
Arg	Arg	Lys	Thr	Leu	Leu	Ala	Leu	Phe	Thr	Asp	His	Gln	Trp	Val	Ala
		115					120					125			
Pro	Ala	Val	Ala	Thr	Ala	Lys	Leu	His	Ala	Asp	Tyr	Gln	Ser	Pro	Val
		130				135						140			
Tyr	Phe	Tyr	Thr	Phe	Tyr	His	His	Cys	Gln	Ala	Glu	Gly	Arg	Pro	Glu
145				150					155					160	
Trp	Ala	Asp	Ala	Ala	His	Gly	Asp	Glu	Leu	Pro	Tyr	Val	Phe	Gly	Val
			165					170					175		
Pro	Met	Val	Gly	Ala	Thr	Asp	Leu	Phe	Pro	Cys	Asn	Phe	Ser	Lys	Asn
		180					185						190		
Asp	Val	Met	Leu	Ser	Ala	Val	Val	Met	Thr	Tyr	Trp	Thr	Asn	Phe	Ala
		195				200						205			
Lys	Thr	Gly	Asp	Pro	Asn	Gln	Pro	Val	Pro	Gln	Asp	Thr	Lys	Phe	Ile
	210				215						220				
His	Thr	Lys	Pro	Asn	Arg	Phe	Glu	Glu	Val	Val	Trp	Ser	Lys	Phe	Asn

```
<210> 997
<211> 320
<212> DNA
<213> Homo sapiens
```

```
<210> 998
<211> 106
<212> PRT
<213> Homo sapiens
```

```
<210> 999
<211> 401
```

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 999

acgcgttcag gcggttaaca atcgcgctaa gaagctgacc aaggaaaatg tcggcatggt  
60  
acatctgagc aagagcttca tcggtgttta tctctactca gaaggcaagt ttgtgaccag  
120  
caactatctc aatcggtggct acaaggacat tctgagctat gcagacgatg ctagtctttt  
180  
gcaaaagcct ccagcagtgg cttcagatga tctggatata ggtctcttga agagggcctt  
240  
ggatgagtgg gtggctgatg ctaagaacca cattctcaat actgaaaact tcttttagcgg  
300  
gtcaaccggg ctcaacattg acagtttcta cgtctttggg gaccaagaca tctgctggca  
360  
gttggcagct attctgaagc agagcatgaa tcgggaattg t  
401

&lt;210&gt; 1000

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1000

Met	Val	His	Leu	Ser	Lys	Ser	Phe	Ile	Gly	Val	Tyr	Leu	Tyr	Ser	Glu
1			5						10				15		
Gly	Lys	Phe	Val	Thr	Ser	Asn	Tyr	Leu	Asn	Arg	Gly	Tyr	Lys	Asp	Ile
			20					25					30		
Leu	Ser	Tyr	Ala	Asp	Asp	Ala	Ser	Leu	Leu	Gln	Lys	Pro	Pro	Ala	Val
			35				40					45			
Ala	Ser	Asp	Asp	Leu	Asp	Thr	Gly	Leu	Leu	Lys	Arg	Ala	Leu	Asp	Glu
			50				55				60				
Trp	Val	Ala	Asp	Ala	Lys	Asn	His	Ile	Leu	Asn	Thr	Glu	Asn	Phe	Phe
65					70					75				80	
Ser	Gly	Ser	Thr	Gly	Leu	Asn	Ile	Asp	Ser	Phe	Tyr	Val	Phe	Gly	Asp
			85						90					95	
Gln	Asp	Ile	Cys	Trp	Gln	Leu	Ala	Ala	Ile	Leu	Lys	Gln	Ser	Met	Asn
			100					105						110	
Arg	Glu	Leu													
			115												

&lt;210&gt; 1001

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1001

cgcggtattg caatgcgcct ggtgccgaat gctaaacctg ctcttgattg cccggtactg  
60  
ttcccttatg cccctaattgc ggtgattggt ggcttctctg ccactaccgt tggttcaatt  
120  
atcgggatga ttgtcttccc gctggttggt ctggcgatga tccttccggg tctgctaact  
180

aacttcttcg ctggtggtgc cgctggagtc tttggcaacg cgatgggagg acgtaaaggg  
 240  
 gcaattattg gcggcgtagt gcacgggctg tttatcaccc tgttaccagc gatgctaatac  
 300  
 cccttactgg aaaccttcgg cttcaaaggc gtcaccttca gtgattccga t  
 351

<210> 1002  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1002  
 Arg Gly Ile Ala Met Arg Leu Val Pro Asn Ala Lys Pro Ala Leu Asp  
 1 5 10 15  
 Cys Pro Val Leu Phe Pro Tyr Ala Pro Asn Ala Val Ile Val Gly Phe  
 20 25 30  
 Leu Ala Thr Thr Val Gly Ser Ile Ile Gly Met Ile Val Phe Pro Leu  
 35 40 45  
 Phe Gly Leu Ala Met Ile Leu Pro Gly Leu Leu Thr Asn Phe Phe Ala  
 50 55 60  
 Gly Gly Ala Ala Gly Val Phe Gly Asn Ala Met Gly Gly Arg Lys Gly  
 65 70 75 80  
 Ala Ile Ile Gly Gly Val Val His Gly Leu Phe Ile Thr Leu Leu Pro  
 85 90 95  
 Ala Met Leu Ile Pro Leu Leu Glu Thr Phe Gly Phe Lys Gly Val Thr  
 100 105 110  
 Phe Ser Asp Ser Asp  
 115

<210> 1003  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 1003  
 acgcgtcctc ctttagtcga tcgcgaatat gataggcgaa gcgacgtgat ggtgtgacgc  
 60  
 acgagcactg ccccatctcc taggcttagg gttatgcaga ctcccatcga cgctacctcc  
 120  
 acccccgcgt ggggcacact ctccggccta aagtcgccgt tcgctgacgg gccacataaa  
 180  
 ctgcgccggt tgttcgacgc cgacctcac cgcgctgagc gctacacctt tgacgtcgcg  
 240  
 gattttgcacg tcgatttatc gaagaacctc cttaccgacg agattcgtga cgctctcctc  
 300  
 gaactggctg cgcagatgcg cgtcaccgag cgctgtagcg cgatgtatgc cggtagcac  
 360  
 atcaacgtca ccgaggaccg cgccgtcctc cataccgcgc tgtgtcgctcc ccgcactgac  
 420  
 gagctgcatg ttgacgggtca ggat  
 444

<210> 1004

<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1004

```

Met Gln Thr Pro Ile Asp Ala Thr Ser Thr Pro Ala Trp Gly Thr Leu
 1             5             10             15
Ser Gly Leu Lys Ser Arg Phe Ala Asp Gly Pro His Lys Leu Arg Arg
      20             25             30
Leu Phe Asp Ala Asp Pro His Arg Ala Glu Arg Tyr Thr Phe Asp Val
      35             40             45
Ala Asp Leu His Val Asp Leu Ser Lys Asn Leu Leu Thr Asp Glu Ile
      50             55             60
Arg Asp Ala Leu Leu Glu Leu Ala Ala Gln Met Arg Val Thr Glu Arg
65             70             75             80
Arg Asp Ala Met Tyr Ala Gly Glu His Ile Asn Val Thr Glu Asp Arg
      85             90             95
Ala Val Leu His Thr Ala Leu Cys Arg Pro Arg Thr Asp Glu Leu His
      100             105             110
Val Asp Gly Gln Asp
      115

```

<210> 1005  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 1005

```

ccatggccat tcctctgggtg actgcatcca gtccgatgga tttaaacacc cccaatgtgc
60
tggtgactcc caagtttaca cctccagcca gggcttctct cctggggtttg catacccacc
120
tatctatctg ccttagccac tcgtgtctga cgagcacctc acacctccag aggctcctca
180
tttcttccca tgctgcttc tcccacactc ctccctctca catgagggca acttcacctc
240
cccagttgct caggcccca acctccatca gttttgactc ttctctcgca cactactcg
299

```

<210> 1006  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 1006

```

Met Ala Ile Pro Leu Val Thr Ala Ser Ser Pro Met Asp Leu Asn Thr
 1             5             10             15
Pro Asn Val Leu Val Thr Pro Lys Phe Thr Pro Pro Ala Arg Ala Ser
      20             25             30
Leu Leu Gly Leu His Thr His Leu Ser Ile Cys Leu Ser His Ser Cys
      35             40             45
Leu Thr Ser Thr Ser His Leu Gln Arg Leu Leu Ile Ser Ser His Ala
      50             55             60
Cys Phe Ser His Thr Pro Pro Ser His Met Arg Ala Thr Ser Ser Ser

```



```
<210> 1007
<211> 389
<212> DNA
<213> Homo sapiens
```

```
<210> 1008
<211> 105
<212> PRT
<213> Homo sapiens
```

```
<210> 1009
<211> 324
<212> DNA
<213> Homo sapiens
```

973

ngccttcacg gctgntatgc ctggcctcat ccccatccct ggcacccgtg acgatagcca  
 60  
 cattccactg gtgtttcccc aggaaagcca accctacctg catctcagca gagcttccac  
 120  
 ggagttggaa ccccgctccg agaggggtgtg ggctcagggg ccaggggtca cacaaactcc  
 180  
 agaaggagga cgtagttggt ttgcaaggct gtcctttgcc ctggttgaat aaccttcggt  
 240  
 ctgccccgag aggaacgtgg gcattaggct gcacccgcag gaagccatgt attttctgag  
 300  
 aaacttggcc catggtgcag atct  
 324

<210> 1010  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 1010  
 Met Gly Gln Val Ser Gln Lys Ile His Gly Phe Leu Arg Val Gln Pro  
 1 5 10 15  
 Asn Ala His Val Pro Leu Gly Ala Asp Arg Arg Leu Phe Asn Gln Gly  
 20 25 30  
 Lys Gly Gln Pro Cys Lys Pro Thr Ser Ser Phe Trp Ser Leu Cys  
 35 40 45  
 Asp Pro Trp Pro Leu Ser Pro His Pro Leu Gly Ala Gly Phe Gln Leu  
 50 55 60  
 Arg Gly Ser Ser Ala Glu Met Gln Val Gly Leu Ala Phe Leu Gly Lys  
 65 70 75 80  
 His Gln Trp Asn Val Ala Ile Val Thr Gly Ala Arg Asp Gly Asp Glu  
 85 90 95  
 Ala Arg His Xaa Ser His Glu Gly  
 100

<210> 1011  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 1011  
 ctgcagaaaa ggaggggggtt cccatgccaa ggcagaactg tctgggacag acgctgcccc  
 60  
 gatccctgcg gctgcctgca ctctggacca cgagctctga gagcagcagg ttgagggccg  
 120  
 gtgggcagca gctcggaggc tccgcgaggt gcaggagacg caggcatggc cggtagagctg  
 180  
 actcctgagg aggaggccca gtacaaaag gctttctccg cggttgacac ggatggaaac  
 240  
 ggcaccatca atgccagga gctgggcgcg gcgctgaagg ccacgggcaa gaacctctcg  
 300  
 gaggcccagc taaagaaact catctccgag  
 330

<210> 1012

<211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 1012  
 Met Ala Gly Glu Leu Thr Pro Glu Glu Glu Ala Gln Tyr Lys Lys Ala  
     1                    5                    10                    15  
 Phe Ser Ala Val Asp Thr Asp Gly Asn Gly Thr Ile Asn Ala Gln Glu  
                     20                    25                    30  
 Leu Gly Ala Ala Leu Lys Ala Thr Gly Lys Asn Leu Ser Glu Ala Gln  
                     35                    40                    45  
 Leu Lys Lys Leu Ile Ser Glu  
     50                    55

<210> 1013  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 1013  
 nacttgacaca tcgtggtggc gtcgctgcgt gcggcactga caatgtgact ggcgcattcg  
 60  
 tggcggcgctc tcctcgtcgc cgggagcggc gaggaaggat taacgatgac cagcgacgtc  
 120  
 cccgggattg gctcgaacgc cgccactttg gcgcgttccc aggctcgcag tgacaaggtc  
 180  
 gaggtgatt tggcgggtcca tcccgacaag tggcgcattc tggggggggga ccgtcctact  
 240  
 ggcagcctgc acatcggtca ctacttcggg tcgctggcga atcgggtacg cgtgcagaac  
 300  
 aagggcattg agtctttcct tgcgtcgcgt gactaccagg ttatctatga ccgcggggggg  
 360  
 ggtggtgacc tgcaggccaa tggtatgtcg aatgtcgccg attacctggc aatcggcatt  
 420  
 gacccaacgc gt  
 432

<210> 1014  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1014  
 Met Thr Ser Asp Val Pro Gly Ile Gly Ser Asn Ala Ala Thr Leu Ala  
     1                    5                    10                    15  
 Arg Ser Gln Ala Arg Ser Asp Lys Val Glu Ala Asp Leu Ala Val His  
                     20                    25                    30  
 Pro Asp Lys Trp Arg Ile Leu Gly Gly Asp Arg Pro Thr Gly Ser Leu  
                     35                    40                    45  
 His Ile Gly His Tyr Phe Gly Ser Leu Ala Asn Arg Val Arg Val Gln  
     50                    55                    60  
 Asn Lys Gly Ile Glu Ser Phe Leu Val Val Ala Asp Tyr Gln Val Ile  
     65                    70                    75                    80  
 Tyr Asp Arg Gly Gly Gly Gly Asp Leu Gln Ala Asn Val Met Ser Asn

85 90 95  
 Val Ala Asp Tyr Leu Ala Ile Gly Ile Asp Pro Thr Arg  
 100 105

<210> 1015  
 <211> 467  
 <212> DNA  
 <213> Homo sapiens

<400> 1015  
 nngaattcga tggctgtgaa aggtcgagct cttaagtgtt ttcatatccc ctgtgtgggt  
 60  
 gaaaacttcc cgatgaaagc gcgcacgggt gaagagctga aagaattgga aagagtttta  
 120  
 cagcaaaaga agattgaagc agagtgtctt aaactacgga aggaaattgt agaggctcag  
 180  
 tctggagtta agttgattaa acagcgatcat gaagaggatg atgaagaaga ggaagaggaa  
 240  
 gacaagacag taaaatatag caatttgccc aattacctgc ttggtagtct gagtactgat  
 300  
 tttggggtag atacctcttt attgtcaagc caattggagc ttcattccag agaagagaaa  
 360  
 atcaacaaaa ttatattatt gaaagatatc atttacaagg taaaaactgt tttcaataat  
 420  
 gagtttgacg ctgcatataa acaaaaagag tttgaaattg cacgcgt  
 467

<210> 1016  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 1016  
 Xaa Asn Ser Met Ala Val Lys Gly Arg Ala Leu Lys Cys Phe His Ile  
 1 5 10 15  
 Pro Cys Val Val Glu Asn Phe Pro Met Lys Ala Arg Thr Val Glu Glu  
 20 25 30  
 Leu Lys Glu Leu Glu Arg Val Leu Gln Gln Lys Lys Ile Glu Ala Glu  
 35 40 45  
 Cys Leu Lys Leu Arg Lys Glu Ile Val Glu Ala Gln Ser Gly Val Lys  
 50 55 60  
 Leu Ile Lys Gln Arg His Glu Glu Asp Asp Glu Glu Glu Glu Glu  
 65 70 75 80  
 Asp Lys Thr Val Lys Tyr Ser Asn Leu Pro Asn Tyr Leu Leu Gly Ser  
 85 90 95  
 Leu Ser Thr Asp Phe Gly Val Asp Thr Ser Leu Leu Ser Ser Gln Leu  
 100 105 110  
 Glu Leu His Ser Arg Glu Glu Lys Ile Asn Gln Ile Ile Leu Leu Lys  
 115 120 125  
 Asp Ile Ile Tyr Lys Val Lys Thr Val Phe Asn Asn Glu Phe Asp Ala  
 130 135 140  
 Ala Tyr Lys Gln Lys Glu Phe Glu Ile Ala Arg  
 145 150 155

<210> 1017  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 1017  
 acgcgtggct ggttgggtat gtggaaccat gtgcgcgcta atgagaagga tgcgaagggg  
 60  
 aacattaaag tgggtcgccc cggctacttt gcggagggtca tggatttcta tgcgcattat  
 120  
 ctgaaggggtg cggttacccg tttccgtccg aattttattg tgcaggataa tacgggccgt  
 180  
 tggcgtgttc agtcgtcgtg gccgcagccg aatcgactg ttacttttgc gggaccccg  
 240  
 ggcattgtcc gctacggtac gacgttggcg gcccgcacgc atgggaatgg tcaggctatt  
 300  
 ccgcaggcgg atgcacagtc tcttaaccgc gagaa  
 335

<210> 1018  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 1018  
 Met Trp Asn His Val Arg Ala Asn Glu Lys Asp Ala Lys Gly Asn Ile  
 1 5 10 15  
 Lys Val Gly Arg Pro Gly Tyr Phe Ala Glu Val Met Asp Phe Tyr Ala  
 20 25 30  
 His Tyr Leu Lys Gly Ala Val Thr Arg Phe Arg Pro Asn Phe Ile Val  
 35 40 45  
 Gln Asp Asn Thr Gly Arg Trp Arg Val Gln Ser Ser Trp Pro Gln Pro  
 50 55 60  
 Asn Arg Thr Val Thr Phe Ala Gly Pro Arg Gly Ile Val Arg Tyr Gly  
 65 70 75 80  
 Thr Thr Leu Ala Ala Arg Thr His Gly Asn Gly Gln Ala Ile Pro Gln  
 85 90 95  
 Ala Asp Ala Gln Ser Leu Asn Arg Glu  
 100 105

<210> 1019  
 <211> 454  
 <212> DNA  
 <213> Homo sapiens

<400> 1019  
 acgcgtgaag gggtagtcgt agtagaagtc gtccacaaac acggggcccg gcagggtccag  
 60  
 ctctggagcc tcctcctcaa tggcgttgcc catggtgcct ggcttgggtg atgaggcggg  
 120  
 tgaagggcgt ggggccaggt ggtgcgggat gaagtcagcc tcgttgaaga gtcgtgggt  
 180  
 ggaggagccg ctgcctgagc cttcagggcc cagtgtgccc aggggccacc gacagagtgg  
 240

cagagagcag gtgacttcct ggcactgcgg agcgaggacc cggagaagta cttcctcaat  
 300  
 ggtggctgga ccattccagtg gaacggggac taccaggtgg cagggaccac cttcacatac  
 360  
 gcacgcaggg gcaactggga gaacctcacg tccccgggtc ccaccaagga gcctgtctgg  
 420  
 atccagctgc tgttccagga gagcaaccct gggg  
 454

<210> 1020

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1020

Met	Ala	Leu	Pro	Met	Val	Pro	Gly	Leu	Gly	Asp	Glu	Ala	Gly	Glu	Gly
1				5				10					15		
Arg	Gly	Ala	Arg	Trp	Cys	Gly	Met	Lys	Ser	Ala	Ser	Leu	Lys	Ser	Ser
			20					25					30		
Trp	Leu	Glu	Glu	Pro	Leu	Pro	Glu	Pro	Ser	Gly	Pro	Ser	Val	Pro	Arg
			35				40					45			
Gly	His	Arg	Gln	Ser	Gly	Arg	Glu	Gln	Val	Thr	Ser	Trp	His	Cys	Gly
	50				55				60						
Ala	Arg	Thr	Arg	Arg	Ser	Thr	Ser	Ser	Met	Val	Ala	Gly	Pro	Ser	Ser
65					70				75					80	
Gly	Thr	Gly	Thr	Thr	Arg	Trp	Gln	Gly	Pro	Pro	Ser	His	Thr	His	Ala
			85					90					95		
Gly	Ala	Thr	Gly	Arg	Thr	Ser	Arg	Pro	Arg	Val	Pro	Pro	Arg	Ser	Leu
			100				105						110		
Ser	Gly	Ser	Ser	Cys	Cys	Ser	Arg	Arg	Ala	Thr	Leu	Gly			
	115						120					125			

<210> 1021

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1021

cagctgtgtc gtgacctcct gtagaccaga gagaggtaga gcatgaaaaa tgctcattga  
 60  
 gccgagatta tctgacagga ccaaagcata taaagttgac tgaagcagga gcaaacacgc  
 120  
 tgggtgaggg tcaagtgtcg gggcagcagc aacaacaaac caaaaaaag ccctttgaac  
 180  
 tcccttaatg ttgccc aaag gttctggtag agaacaagtc acatgcctaa gaaggtcttt  
 240  
 taaagggcac tcttgagtt tcagcatttg gtccggggaa ttgcacaagg ctctgcttaa  
 300  
 atgcagagct ctttctagca tcttcatatt caaggcggaa aaactgagct tggcgaggaa  
 360  
 ccctgt  
 366

<210> 1022

<211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 1022  
 Met Lys Met Leu Glu Arg Ala Leu His Leu Ser Arg Ala Leu Cys Asn  
     1                    5                    10                    15  
 Ser Pro Asp Gln Met Leu Lys Leu Gln Glu Cys Pro Leu Lys Asp Leu  
                     20                    25                    30  
 Leu Arg His Val Thr Cys Ser Leu Pro Glu Pro Leu Gly Asn Ile Lys  
                     35                    40                    45  
 Gly Val Gln Arg Ala Phe Phe Trp Phe Val Val Ala Ala Pro Ala  
                     50                    55                    60  
 Leu Asp Pro Gln Pro Ala Cys Leu Leu Leu Leu Gln Ser Thr Leu Tyr  
     65                    70                    75                    80  
 Ala Leu Val Leu Ser Asp Asn Leu Gly Ser Met Ser Ile Phe His Ala  
                     85                    90                    95  
 Leu Pro Leu Ser Gly Leu Gln Glu Val Thr Thr Gln Leu  
                     100                    105

<210> 1023  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<400> 1023  
 gccgggcttc gggctctctga agcgatcaac ctggccgact cggatgcaga tctggacggc  
     60  
 ggcatcctga ccatacagca gaccaagttt ggcaagtccc gcatgggtgcc gctacacccc  
     120  
 agcgtgatcg gtccgatggc agcctaccgg gccttgcgcc gccagtacgt gcctgcgaag  
     180  
 ccgcagatga cattcttcgt gggctcgcgt ggcggtgcacc ggggtgaacc gctgggagat  
     240  
 aggcaggtgc atcgagtgtt ctgtcagctg cgcgagcaat tgggttggat cgatcgcggc  
     300  
 ggccatggcc gaccgegggt gcatgacctg cgccatagct tcgccgtgag acggatgatc  
     360  
 ctgtggcacc agcagggagc gaaccttgac caacgaatgc tggccctgtc cacgtacatg  
     420  
 ggccac  
     426

<210> 1024  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 1024  
 Ala Gly Leu Arg Val Ser Glu Ala Ile Asn Leu Ala Asp Ser Asp Ala  
     1                    5                    10                    15  
 Asp Leu Asp Gly Gly Ile Leu Thr Ile Gln Gln Thr Lys Phe Gly Lys  
                     20                    25                    30  
 Ser Arg Met Val Pro Leu His Pro Ser Val Ile Gly Pro Met Ala Ala

```

      35          40          45
Tyr Arg Ala Leu Arg Arg Gln Tyr Val Pro Ala Lys Pro Gln Met Thr
  50          55          60
Phe Phe Val Gly Ser Arg Gly Val His Arg Gly Glu Pro Leu Gly Asp
  65          70          75          80
Arg Gln Val His Arg Val Phe Cys Gln Leu Arg Glu Gln Leu Gly Trp
      85          90          95
Ile Asp Arg Gly Gly His Gly Arg Pro Arg Val His Asp Leu Arg His
      100          105          110
Ser Phe Ala Val Arg Arg Met Ile Leu Trp His Gln Gln Gly Ala Asn
      115          120          125
Leu Asp Gln Arg Met Leu Ala Leu Ser Thr Tyr Met Gly His
      130          135          140

```

<210> 1025  
 <211> 518  
 <212> DNA  
 <213> Homo sapiens

```

<400> 1025
naccgctggt gcgcgcaggt ggccgcgcgg tccctttgct ccctgcgcaa gccggagggg
  60
tgcccagaag gctaccacta gcctcagcga aggggtgcgc ctgagagccg ggtagcctcg
  120
gatagcggcg ctgcgtacgc gatgatggat gagccgtggt gggaagggcg cgtcgcctcg
  180
gacgtccact gcaccctgcg cgagaaggaa ctgaagctgc ccaccttccg agccactcc
  240
ccactcctga agagccgccc gttcttcgtg gacatcctga ccctgctgag cagccactgc
  300
cagctctgcc ctgcagcccg gcacctggcc gtctacctgc tggaccactt catggatcgc
  360
tacaacgtca ccacctccaa gcagctctac accgtggccg tctcctgcct cctgcttgca
  420
agtaagtctg aggatcgga agaccacgtc cccaagttgg agcaaataaa cagcacgagg
  480
atcctgagca gccagaactt caccctcacc aagaagga
  518

```

<210> 1026  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1026
Met Met Asp Glu Pro Trp Trp Glu Gly Arg Val Ala Ser Asp Val His
  1          5          10          15
Cys Thr Leu Arg Glu Lys Glu Leu Lys Leu Pro Thr Phe Arg Ala His
      20          25          30
Ser Pro Leu Leu Lys Ser Arg Arg Phe Phe Val Asp Ile Leu Thr Leu
      35          40          45
Leu Ser Ser His Cys Gln Leu Cys Pro Ala Ala Arg His Leu Ala Val
      50          55          60
Tyr Leu Leu Asp His Phe Met Asp Arg Tyr Asn Val Thr Thr Ser Lys

```



```

65              70              75              80
Gln Leu Tyr Thr Val Ala Val Ser Cys Leu Leu Leu Ala Ser Lys Phe
      85              90              95
Glu Asp Arg Glu Asp His Val Pro Lys Leu Glu Gln Ile Asn Ser Thr
      100              105              110
Arg Ile Leu Ser Ser Gln Asn Phe Thr Leu Thr Lys Lys
      115              120              125

```

<210> 1027  
 <211> 465  
 <212> DNA  
 <213> Homo sapiens

```

<400> 1027
ggcccaaaag tcacaaaga aaagctgaca caggagctga aggaccacaa cgccaccagc
60
atcctgcagc agctgccgct gctcaaggcc atgcgggaaa agccagccgg aggcacccct
120
gtgctgggca gcctggtgaa caccngtctt gaagcacatc atnctgggt gaaggctcatc
180
acagctaaca tctccagct gcaggtgaag ccctcgcca atgaccagga gctgctagtc
240
aagatcccc tggacatggt ggctggattc aacacgcccc tggtaagac catcgtggag
300
ttccacatga cgactgagc ccaagccacc atccgcatgg acaccagtgc aagtggcccc
360
acccgcctgg tctcagtga ctgtgccacc agccatggga gcctgcgcat ccaactgctg
420
cataagctct ccttcaagct gaacgcctca gctaagcagg tcacg
465

```

<210> 1028  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1028
Gly Pro Lys Val Ile Lys Glu Lys Leu Thr Gln Glu Leu Lys Asp His
1      5      10      15
Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Lys Ala Met Arg
      20      25      30
Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser Leu Val Asn Thr
      35      40      45
Xaa Pro Glu Ala His His Xaa Trp Leu Lys Val Ile Thr Ala Asn Ile
      50      55      60
Leu Gln Leu Gln Val Lys Pro Ser Ala Asn Asp Gln Glu Leu Leu Val
65      70      75      80
Lys Ile Pro Leu Asp Met Val Ala Gly Phe Asn Thr Pro Leu Val Lys
      85      90      95
Thr Ile Val Glu Phe His Met Thr Thr Glu Ala Gln Ala Thr Ile Arg
      100      105      110
Met Asp Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys
      115      120      125
Ala Thr Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser

```

130 135 140  
 Phe Lys Leu Asn Ala Ser Ala Lys Gln Val Met  
 145 150 155

<210> 1029  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 1029  
 acgcgtgaag ggaaactgtc ctcacagatg agtgtgaggg ttcaaaaaga tactgcctgc  
 60  
 caagcactgg ccacaaatgc ctggcagaac aactgctcat aagtgtgtag ttgttggtat  
 120  
 tattactaac caagtgagga aaattatccc tagcaggtcc agatgaccgt gtgcatgaat  
 180  
 cacagggaga ccctaaagga tttcctcctg taaagctctt tccccaccta tttgctactg  
 240  
 cctgaaattg ctttagcagg aacagaatc tctcatgcca caagtgagca taaagtttaa  
 300  
 aatgtaaatg ctctaggaaa aggcaactca tctcttaa at tctctccaag gttcaaatcc  
 360  
 tttccaaaga ggaggctttt gtataagtca gaaggcccag tccctgaagg tcatggaaaa  
 420  
 ggtcatgaca cacggagggg gtgtcaaagg gagactggga aactgaagat gaagctagc  
 479

<210> 1030  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 1030  
 Met Ser Cys Leu Phe Leu Glu His Leu His Phe Lys Leu Tyr Ala His  
 1 5 10 15  
 Leu Trp His Glu Arg Phe Cys Phe Leu Leu Lys Gln Phe Gln Ala Val  
 20 25 30  
 Ala Asn Arg Trp Gly Lys Ser Phe Thr Gly Gly Asn Pro Leu Gly Ser  
 35 40 45  
 Pro Cys Asp Ser Cys Thr Arg Ser Ser Gly Pro Ala Arg Asp Asn Phe  
 50 55 60  
 Pro His Leu Val Ser Asn Asn Asn Asn Asn Tyr Thr Leu Met Ser Ser  
 65 70 75 80  
 Cys Ser Ala Arg His Leu Trp Pro Val Leu Gly Arg Gln Tyr Leu Phe  
 85 90 95  
 Glu Pro Ser His Ser Ser Val Arg Thr Val Ser Leu His Ala  
 100 105 110

<210> 1031  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 1031

nacgcgtttt atgtcagcgt tgaattggaa gacggcaagt ctatcgccat gctgccccag  
 60  
 gcagatggct ggtttgaagt ggagggtgaag tgcccggcgg gcactcacta ccgtataaac  
 120  
 atcgacggcg aaaccgatgt acccgacccg gcatccaggg cgcaagccaa cgatgtgcat  
 180  
 ggggtggagcg tcgtcgtcga cccgctcgcc tatcaatggc gacaccctaa ctggcaaggc  
 240  
 cgccccctggc atgaggcggt gatttacgag ctgcacgttg gcgtactggg cgggtacgcc  
 300  
 gctgttgaac agcaactgcc gc  
 322

<210> 1032

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1032

Xaa	Ala	Phe	Tyr	Val	Ser	Val	Glu	Leu	Glu	Asp	Gly	Lys	Ser	Ile	Ala
1				5					10					15	
Met	Leu	Pro	Gln	Ala	Asp	Gly	Trp	Phe	Glu	Val	Glu	Val	Lys	Cys	Pro
			20					25					30		
Ala	Gly	Thr	His	Tyr	Arg	Tyr	Asn	Ile	Asp	Gly	Glu	Thr	Asp	Val	Pro
		35					40					45			
Asp	Pro	Ala	Ser	Arg	Ala	Gln	Ala	Asn	Asp	Val	His	Gly	Trp	Ser	Val
		50				55					60				
Val	Val	Asp	Pro	Leu	Ala	Tyr	Gln	Trp	Arg	His	Pro	Asn	Trp	Gln	Gly
65					70					75				80	
Arg	Pro	Trp	His	Glu	Ala	Val	Ile	Tyr	Glu	Leu	His	Val	Gly	Val	Leu
			85						90					95	
Gly	Gly	Tyr	Ala	Ala	Val	Glu	Gln	Gln	Leu	Pro					
			100					105							

<210> 1033

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1033

tgcgtccacc ggggtgacct cctgactgcc tcagtcacga ttccttatgg tcgaagtgtc  
 60  
 acagcgccaa ggggtgtgag gagggccctt cgcgggtcac ggataggtcc aagggtggcac  
 120  
 aattcacatt caaatccatc acttttcaca taattgctgt taatatgaac gtcattgagtc  
 180  
 gttgttgctc gcggttgcca gtgggactcc ccatacacgg cagcgagaca tggaggaacc  
 240  
 atgggactaa ggatcgttgt cgccgctgat ccggcggcag tcgagtacaa ggatgtcgtc  
 300  
 aaggctgacc tggaagcgga ttcgcgagtc gatgacgtta tcgacgtcgg cgttcaggct  
 360  
 ggtgacgaca ccctctaccc gcgcacggc atcaagggag ctcacgtcat caaggacgga  
 420

aaagccgatc gaggaatctt tttctgcggc accgggatgg gcatggccat cacggccaac  
 480  
 aaggtgccag gcattcgcgc ctgcaccgcc cagcactcct tctccgtaga gcggctcatc  
 540  
 atgtccaacg acgcccacgt gctatgcctc ggccaacgc  
 579

<210> 1034  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 1034  
 Met Gly Leu Arg Ile Val Val Ala Ala Asp Pro Ala Ala Val Glu Tyr  
 1 5 10 15  
 Lys Asp Val Val Lys Ala Asp Leu Glu Ala Asp Ser Arg Val Asp Asp  
 20 25 30  
 Val Ile Asp Val Gly Val Gln Ala Gly Asp Asp Thr Leu Tyr Pro Arg  
 35 40 45  
 Ile Gly Ile Lys Gly Ala His Val Ile Lys Asp Gly Lys Ala Asp Arg  
 50 55 60  
 Gly Ile Phe Phe Cys Gly Thr Gly Met Gly Met Ala Ile Thr Ala Asn  
 65 70 75 80  
 Lys Val Pro Gly Ile Arg Ala Cys Thr Ala His Asp Ser Phe Ser Val  
 85 90 95  
 Glu Arg Leu Ile Met Ser Asn Asp Ala His Val Leu Cys Leu Gly Gln  
 100 105 110  
 Arg

<210> 1035  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<400> 1035  
 nacgcgtgca atgtgtgtgt gtgtatgnga ccatgtctct gtgtgtgtat gngcatatgt  
 60  
 gtgtgtatan gaatgtgtgt atgtgtantg gaatgtgtgt gtgtantgga agctgtgtgc  
 120  
 atatgtnaat gtctgtgtgc atgtacgnga atgtgcgcgt gtatggaatg tatctgtgta  
 180  
 tgtgtatgga ccgtttgtgt gattatgcaa tatgtccgtg tgtgcgtatg gagtgtctca  
 240  
 gtatggcatg tgtgtgtgta tctactgtgc gtctctgtgt gtgtantgac atgcatatgt  
 300  
 atagaaagcg tctgcgctgt gtgcatgtgt gtcagtatcg aacgagtcgg agatgtggta  
 360  
 atn  
 363

<210> 1036  
 <211> 121  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1036

Xaa Ala Cys Asn Val Cys Val Cys Met Xaa Pro Cys Leu Cys Val Cys  
 1 5 10 15  
 Met Xaa Ile Cys Val Cys Ile Xaa Met Cys Val Cys Val Xaa Glu Cys  
 20 25 30  
 Val Cys Val Xaa Glu Ala Val Cys Ile Cys Xaa Cys Leu Cys Ala Cys  
 35 40 45  
 Thr Xaa Met Cys Ala Cys Met Glu Cys Ile Cys Val Cys Val Trp Thr  
 50 55 60  
 Val Cys Val Ile Met Gln Tyr Val Arg Val Cys Val Trp Ser Val Ser  
 65 70 75 80  
 Val Trp His Val Cys Val Tyr Leu Leu Cys Val Ser Val Cys Val Xaa  
 85 90 95  
 Thr Cys Ile Cys Ile Glu Ser Val Cys Ala Val Cys Met Cys Val Ser  
 100 105 110  
 Ile Glu Arg Val Gly Asp Val Val Xaa  
 115 120

&lt;210&gt; 1037

&lt;211&gt; 5832

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1037

ccttctcctg ggggccagat gcatgctgga atcagtagct ttcagcagag taactcaagt  
 60  
 gggacttacg gtccacagat gagccagtat ggaccacaag gtaactactc cagaccccca  
 120  
 gcgtatagtg ggggtgccag tgcaagctac agcggcccag ggcccgggtat gggatatcagt  
 180  
 gccacaacc agatgcatgg acaagggccca agccagccat gtgggtgctgt gcccctggga  
 240  
 cgaatgccat cagctgggat gcagaacaga ccatttcctg gaaatatgag cagcatgacc  
 300  
 cccagttctc ctggcatgtc tcagcagggga gggccaggaa tggggccgcc aatgccaaact  
 360  
 gtgaaccgta aggcacagga ggcagccgca gcagtgatgc aggctgctgc gaactcagca  
 420  
 caaagcaggc aaggcagttt ccccggcctg aaccagagtg gacttatggc ttccagctct  
 480  
 ccctacagcc agcccatgaa caacagctct agcctgatga acacgcaggc gccgccctac  
 540  
 agcatggcgc ccgccatggg gaacagctcg gcagcatctg tgggtcttgc agatatgatg  
 600  
 tctcctgggtg aatccaaact gcccctgcct ctcaaagcag acggcaaaga agaaggcact  
 660  
 ccacagcccc agagcaagtc aaaggatagc tacagctctc agggatattc tcagccccc  
 720  
 accccaggca acctgccagt ccttcccca atgtcccca gctctgctag catctctca  
 780  
 tttcatggag atgaaagtga tagcattagc agcccaggct ggccaaagac tccatcaagc  
 840

cctaagtcca gctcctccac cactactggg gagaagatca cgaaggtgta cgagctgggg  
900  
aatgagccag agagaaagct ctgggtcgac cgatacctca ctttcatgga agagagaggc  
960  
tctcctgtct caagtctgcc tgccgtgggc aagaagcccc tggacctgtt ccgactctac  
1020  
gtctgcgtca aagagatcgg gggtttggcc caggttaata aaaacaagaa gtggcgtgag  
1080  
ctggcaacca acctaaacgt tggcacctca agcagtgcag cgagctccct gaaaaagcag  
1140  
tatattcagt acctgtttgc ctttgagtgc aagatcgaac gtggggagga gccccgcgc  
1200  
gaagtcttca gcaccgggga caccaaaaag cagcccaagc tccagccgcc atctcctgct  
1260  
aactcgggat ccttgcaagg cccacagacc cccagtcaa ctggcagcaa ttccatggca  
1320  
gaggttccag gtgacctgaa gccacctacc ccagcctcca cccctcacgg ccagatgact  
1380  
ccaatgcaag gtggaagaag cagtacaatc agtgtgcacg acccattctc agatgtgagt  
1440  
gattcatcct tcccgaacg gaactccatg actccaaacg cccctacca gcagggcatg  
1500  
agcatgcccc atgtgatggg caggatgccc tatgagccca acaaggaccc ctttggggga  
1560  
atgagaaaag tgccctggaag cagcgagccc tttatgacgc aaggacagat gcccaacagc  
1620  
agcatgcagg acatgtacaa ccaaagtccc tccggagcaa tgtctaacct gggcatgggg  
1680  
cagcgccagc agtttcccta tggagccagt tacgaccgaa ggcataaacc ttatgggcag  
1740  
cagtatccag gccaaaggccc tccctcggga cagccgccgt atggagggca ccagcccggc  
1800  
ctgtaccac agcagccgaa ttacaaacgc catatggacg gcatgtacgg gccccagcc  
1860  
aagcgccagc agggcgacat gtacaacatg cagtacagca gccagcagca ggagatgtac  
1920  
aaccagtatg gaggctccta ctggggcccc gaccgcaggc ccatccaggg ccagtacccg  
1980  
tatccctaca gcaggagag gatgcagggc ccggggcaga tccagacaca cggaatcccc  
2040  
cttcagatga tgggcggccc gctgcagtcg tcctccagtg aggggcctca gcagaatatg  
2100  
tgggcagcac gcaatgatat gccttatccc taccagaaca ggcagggccc tggcgccct  
2160  
acacaggcgc ccccttacc aggcataaac cgcacagacg atatgatggt acccgatcag  
2220  
aggataaatc atgagagcca gtggccttct cagctcagcc agcgtcagcc ttatatgtcg  
2280  
tcctcagcct ccatgcagcc catcacacgc ccaccacagc cgtectacca gacgccaccg  
2340  
tcactgccaa atcacatctc cagggcgccc agcccagcgt ccttcagcg ctccctggag  
2400  
aaccgcatgt ctccaagcaa gtctcctttt ctgccgtcta tgaagatgca gaaggatcag  
2460

cccacggtcc ccacatccca ggtcaccggg ccaccacccc aaccaccccc aatcagaagg  
2520  
gagatcacct ttcctcctgg ctccagtagaa gcatcacaac cagtcttgaa acaaaggcga  
2580  
aagattacct ccaaagatat cgttactcct gaggcgtggc gtgtgatgat gtcccttaaa  
2640  
tcagggtcttt tggctgagag tacgtgggct ttggacacta ttaatattct tctgtatgat  
2700  
gacagcactg ttgctacttt caatctctcc cagttgtctg gatttctcga acttttagtc  
2760  
gagtacttta gaaaatgcct gattgacatt tttggaattc ttatggaata tgaagtggga  
2820  
gaccccgacc aaaaagcact tgatcacaac gcagcaagga aggatgacag ccagtccttg  
2880  
gcagacgatt ctgggaaaga ggaggaagat gctgaatgta ttgatgacga cgaggaagac  
2940  
gaggaggatg aggaggaaga cagcgagaag acagaaagcg atgaaaagag cagcatcgct  
3000  
ctgactgccc cggacgccgc tgcagacca aaggagaagc ccaagcaagc cagtaagttc  
3060  
gacaagctgc caataaagat agtcaaaaag aacaacctgt ttgttgtga ccgatctgac  
3120  
aagttggggc gtgtgcagga gttcaatagt ggccttctac actggcagct cggcgggggt  
3180  
gacaccaccg agcacattca gactcacttt gagagcaaga tggaaattcc tctcgcagg  
3240  
cgcccacctc cccccttaag ctccgcaggt aagaagaaag agctggcagg caaaggcgac  
3300  
tctgaagagc agcaagagaa aagcatcata gcaaccattg atgacgtcct gtctgctcgg  
3360  
ccaggggcat tgccggaaga cgcaaacctt gggccccaga ccgaaagcag taagtctccc  
3420  
tttggatatc agcaagccaa aagtcaccgg aacatcaagc tgctggagga cgagcccagg  
3480  
agccgagacg agactcccct gtgtaccatc gcgcactggc aggactcgct ggctaagcga  
3540  
tgcatctgtg tgtccaatat tgtccgtagc ttgtcattcg tgctggcaa tgatgccgaa  
3600  
atgtccaaac atccaggcct ggtgctgac ctggggaagc tgattcttct tcaccacgag  
3660  
catccagaga gaaagcgagc accgcagacc tatgagaaag aggaggatga ggacaagggg  
3720  
gtggcctgca gcaaagatga gtgggtgggtg gactgcctcg aggtcttgag ggataacacg  
3780  
ttgggtcacgt tggccaacat ttccgggcag ctagacttgt ctgcttacac ggaaagcatc  
3840  
tgcttgccaa ttttggatgg cttgctgcac tggatgggtg gcccgctctc agaggcacia  
3900  
gatccctttc caactgtggg acccaactcg gtcccgctgc ctccagagact tgtgctggag  
3960  
accctctgta aactcagtat ccaggacaat aatgtggacc tgatcttggc cactcctcca  
4020  
ttagtcgtc aggagaaatt ctatgctaca ttagttaggt acgttgggga tcgcaaaaac  
4080

ccagtctgtc gagaaatgtc catggcgctt ttatcgaacc ttgcccaagg ggacgcacta  
4140  
gcagcaaggg ccatactgtt gcagaaagga agcattggaa acttgataag ctccctagag  
4200  
gatgggggtca cgatggccca gtaccagcag agccagcaca acctcatgca catgcagccc  
4260  
ccgcccctgg aaccacctag cgtagacatg atgtgcaggg cggccaaggc tttgctagcc  
4320  
atggccagag tggacgaaaa ccgctcggaa ttccttttgc acgagggccg gttgctggat  
4380  
atctcgatat cagctgtcct gaactctctg gttgcatctg tcatctgtga tgtactgttt  
4440  
cagattgggc agttatgaca taagtgagaa ggcaagcatg tgtgagtga gattagaggg  
4500  
tcacatataa ctggctgttt tctgttcttg tttatccagc gtaggaagaa ggaaaagaaa  
4560  
atctttgtct ctctgcccc ttcactatct accaattggg aattaaagaa ataattaatt  
4620  
tgaacagtta tgaaattaat atttgctgtc tgtgtgtata agtacatcct ttgggggttt  
4680  
ttttttctct tttttttaac caaagtgtgt gtctagtga ttcaaaggc actttttgtt  
4740  
cttcacagat ctttttaatt ttctttccca tgttgatttg cttttttggg ggaagcaaat  
4800  
tgactttaaa gaaaaaagtt gtggcaaaag atgctaagat gcgaaaattt caccacactg  
4860  
agtcaaaaag gtgaaaaatt atccatttcc tatgcgtttt actcctcaga gaatgaaaaa  
4920  
aactgcatcc catcacccaa agttctgtgc aatagaaatt tctacagata caggataggg  
4980  
ggctcaagga ggtatgtcgg tcagtagtca aaactatgaa atgatactgg tttctccaca  
5040  
ggaatatggg tccattaggg tgggagcaaa aacaatgttt ttttaagattg agaatacata  
5100  
cctgacaacg atccggaaac tgctcctcac cactcccgtc atgcctgctg tcggcgtttg  
5160  
accttccacg tgacagttct tcacaattcc tttcatcatt ttttaaatat tttttttact  
5220  
gcctatgggc tgtgatgtat atagaagttg tacattaaac ataccctcat ttttttcttt  
5280  
tttttttttt ttttttttag taaaaagttt tagtttcttt ttcattgatgt ggtaactacg  
5340  
aagtgatggg agatttaaat aattttttat ttttatttta tatatttttt cattagggcc  
5400  
atatctccaa aaaaagaaa aaaaaatata aaaaacaaaa acaaaaaaaaaa aagagggtaa  
5460  
tgtacaagtt tctgtatgta taaagtcag ctcgatttca ggagagcagc tgatcacaat  
5520  
ttgcttcatg aatcaaggtg tggaaatggg tatatatgga ttgattttaga aaatgggttac  
5580  
cagtacagtc aaaaaagaga aaatgaaaaa aatacaacta aaaggaagaa acacaacttc  
5640  
aaagattttt cagtgatgag aatccacatt tgtatttcaa gataatgtag tttaaaaaaa  
5700



aaaaaaagaa aaaaacttga tgtaaattcc tctttttcct ctggcttaat gaatatcatt  
 5760  
 tattcagtat aaaatcttta tatgttcac atgtaagaa taaatgtaca ttaaattctg  
 5820  
 ttaagcactg tg  
 5832

<210> 1038

<211> 1485

<212> PRT

<213> Homo sapiens

<400> 1038

Pro	Ser	Pro	Gly	Gly	Gln	Met	His	Ala	Gly	Ile	Ser	Ser	Phe	Gln	Gln
1				5					10					15	
Ser	Asn	Ser	Ser	Gly	Thr	Tyr	Gly	Pro	Gln	Met	Ser	Gln	Tyr	Gly	Pro
			20					25					30		
Gln	Gly	Asn	Tyr	Ser	Arg	Pro	Pro	Ala	Tyr	Ser	Gly	Val	Pro	Ser	Ala
		35					40					45			
Ser	Tyr	Ser	Gly	Pro	Gly	Pro	Gly	Met	Gly	Ile	Ser	Ala	Asn	Asn	Gln
	50					55				60					
Met	His	Gly	Gln	Gly	Pro	Ser	Gln	Pro	Cys	Gly	Ala	Val	Pro	Leu	Gly
65					70				75					80	
Arg	Met	Pro	Ser	Ala	Gly	Met	Gln	Asn	Arg	Pro	Phe	Pro	Gly	Asn	Met
				85				90					95		
Ser	Ser	Met	Thr	Pro	Ser	Ser	Pro	Gly	Met	Ser	Gln	Gln	Gly	Gly	Pro
			100					105					110		
Gly	Met	Gly	Pro	Pro	Met	Pro	Thr	Val	Asn	Arg	Lys	Ala	Gln	Glu	Ala
		115					120					125			
Ala	Ala	Ala	Val	Met	Gln	Ala	Ala	Ala	Asn	Ser	Ala	Gln	Ser	Arg	Gln
		130				135					140				
Gly	Ser	Phe	Pro	Gly	Met	Asn	Gln	Ser	Gly	Leu	Met	Ala	Ser	Ser	Ser
145					150				155					160	
Pro	Tyr	Ser	Gln	Pro	Met	Asn	Asn	Ser	Ser	Ser	Leu	Met	Asn	Thr	Gln
				165					170					175	
Ala	Pro	Pro	Tyr	Ser	Met	Ala	Pro	Ala	Met	Val	Asn	Ser	Ser	Ala	Ala
			180					185					190		
Ser	Val	Gly	Leu	Ala	Asp	Met	Met	Ser	Pro	Gly	Glu	Ser	Lys	Leu	Pro
		195				200					205				
Leu	Pro	Leu	Lys	Ala	Asp	Gly	Lys	Glu	Glu	Gly	Thr	Pro	Gln	Pro	Glu
		210				215					220				
Ser	Lys	Ser	Lys	Asp	Ser	Tyr	Ser	Ser	Gln	Gly	Ile	Ser	Gln	Pro	Pro
225				230					235					240	
Thr	Pro	Gly	Asn	Leu	Pro	Val	Pro	Ser	Pro	Met	Ser	Pro	Ser	Ser	Ala
			245					250					255		
Ser	Ile	Ser	Ser	Phe	His	Gly	Asp	Glu	Ser	Asp	Ser	Ile	Ser	Ser	Pro
		260				265						270			
Gly	Trp	Pro	Lys	Thr	Pro	Ser	Ser	Pro	Lys	Ser	Ser	Ser	Ser	Thr	Thr
		275				280						285			
Thr	Gly	Glu	Lys	Ile	Thr	Lys	Val	Tyr	Glu	Leu	Gly	Asn	Glu	Pro	Glu
		290				295					300				
Arg	Lys	Leu	Trp	Val	Asp	Arg	Tyr	Leu	Thr	Phe	Met	Glu	Glu	Arg	Gly
305				310						315				320	
Ser	Pro	Val	Ser	Ser	Leu	Pro	Ala	Val	Gly	Lys	Lys	Pro	Leu	Asp	Leu

325 330 335  
 Phe Arg Leu Tyr Val Cys Val Lys Glu Ile Gly Gly Leu Ala Gln Val  
 340 345 350  
 Asn Lys Asn Lys Lys Trp Arg Glu Leu Ala Thr Asn Leu Asn Val Gly  
 355 360 365  
 Thr Ser Ser Ser Ala Ala Ser Ser Leu Lys Lys Gln Tyr Ile Gln Tyr  
 370 375 380  
 Leu Phe Ala Phe Glu Cys Lys Ile Glu Arg Gly Glu Glu Pro Pro Pro  
 385 390 395 400  
 Glu Val Phe Ser Thr Gly Asp Thr Lys Lys Gln Pro Lys Leu Gln Pro  
 405 410 415  
 Pro Ser Pro Ala Asn Ser Gly Ser Leu Gln Gly Pro Gln Thr Pro Gln  
 420 425 430  
 Ser Thr Gly Ser Asn Ser Met Ala Glu Val Pro Gly Asp Leu Lys Pro  
 435 440 445  
 Pro Thr Pro Ala Ser Thr Pro His Gly Gln Met Thr Pro Met Gln Gly  
 450 455 460  
 Gly Arg Ser Ser Thr Ile Ser Val His Asp Pro Phe Ser Asp Val Ser  
 465 470 475 480  
 Asp Ser Ser Phe Pro Lys Arg Asn Ser Met Thr Pro Asn Ala Pro Tyr  
 485 490 495  
 Gln Gln Gly Met Ser Met Pro Asp Val Met Gly Arg Met Pro Tyr Glu  
 500 505 510  
 Pro Asn Lys Asp Pro Phe Gly Gly Met Arg Lys Val Pro Gly Ser Ser  
 515 520 525  
 Glu Pro Phe Met Thr Gln Gly Gln Met Pro Asn Ser Ser Met Gln Asp  
 530 535 540  
 Met Tyr Asn Gln Ser Pro Ser Gly Ala Met Ser Asn Leu Gly Met Gly  
 545 550 555 560  
 Gln Arg Gln Gln Phe Pro Tyr Gly Ala Ser Tyr Asp Arg Arg His Glu  
 565 570 575  
 Pro Tyr Gly Gln Gln Tyr Pro Gly Gln Gly Pro Pro Ser Gly Gln Pro  
 580 585 590  
 Pro Tyr Gly Gly His Gln Pro Gly Leu Tyr Pro Gln Gln Pro Asn Tyr  
 595 600 605  
 Lys Arg His Met Asp Gly Met Tyr Gly Pro Pro Ala Lys Arg His Glu  
 610 615 620  
 Gly Asp Met Tyr Asn Met Gln Tyr Ser Ser Gln Gln Gln Glu Met Tyr  
 625 630 635 640  
 Asn Gln Tyr Gly Gly Ser Tyr Ser Gly Pro Asp Arg Arg Pro Ile Gln  
 645 650 655  
 Gly Gln Tyr Pro Tyr Pro Tyr Ser Arg Glu Arg Met Gln Gly Pro Gly  
 660 665 670  
 Gln Ile Gln Thr His Gly Ile Pro Leu Gln Met Met Gly Gly Pro Leu  
 675 680 685  
 Gln Ser Ser Ser Ser Glu Gly Pro Gln Gln Asn Met Trp Ala Ala Arg  
 690 695 700  
 Asn Asp Met Pro Tyr Pro Tyr Gln Asn Arg Gln Gly Pro Gly Gly Pro  
 705 710 715 720  
 Thr Gln Ala Pro Pro Tyr Pro Gly Met Asn Arg Thr Asp Asp Met Met  
 725 730 735  
 Val Pro Asp Gln Arg Ile Asn His Glu Ser Gln Trp Pro Ser His Val  
 740 745 750  
 Ser Gln Arg Gln Pro Tyr Met Ser Ser Ser Ala Ser Met Gln Pro Ile

755	760	765
Thr Arg Pro Pro Gln Pro Ser Tyr Gln Thr Pro Pro Ser Leu Pro Asn		
770	775	780
His Ile Ser Arg Ala Pro Ser Pro Ala Ser Phe Gln Arg Ser Leu Glu		
785	790	795
Asn Arg Met Ser Pro Ser Lys Ser Pro Phe Leu Pro Ser Met Lys Met		800
	805	810
Gln Lys Val Met Pro Thr Val Pro Thr Ser Gln Val Thr Gly Pro Pro		815
	820	825
Pro Gln Pro Pro Pro Ile Arg Arg Glu Ile Thr Phe Pro Pro Gly Ser		830
	835	840
Val Glu Ala Ser Gln Pro Val Leu Lys Gln Arg Arg Lys Ile Thr Ser		845
	850	855
Lys Asp Ile Val Thr Pro Glu Ala Trp Arg Val Met Met Ser Leu Lys		860
865	870	875
Ser Gly Leu Leu Ala Glu Ser Thr Trp Ala Leu Asp Thr Ile Asn Ile		880
	885	890
Leu Leu Tyr Asp Asp Ser Thr Val Ala Thr Phe Asn Leu Ser Gln Leu		895
	900	905
Ser Gly Phe Leu Glu Leu Leu Val Glu Tyr Phe Arg Lys Cys Leu Ile		910
	915	920
Asp Ile Phe Gly Ile Leu Met Glu Tyr Glu Val Gly Asp Pro Ser Gln		925
	930	935
Lys Ala Leu Asp His Asn Ala Ala Arg Lys Asp Asp Ser Gln Ser Leu		940
945	950	955
Ala Asp Asp Ser Gly Lys Glu Glu Glu Asp Ala Glu Cys Ile Asp Asp		960
	965	970
Asp Glu Glu Asp Glu Glu Asp Glu Glu Glu Asp Ser Glu Lys Thr Glu		975
	980	985
Ser Asp Glu Lys Ser Ser Ile Ala Leu Thr Ala Pro Asp Ala Ala Ala		990
	995	1000
Asp Pro Lys Glu Lys Pro Lys Gln Ala Ser Lys Phe Asp Lys Leu Pro		1005
	1010	1015
Ile Lys Ile Val Lys Lys Asn Asn Leu Phe Val Val Asp Arg Ser Asp		1020
1025	1030	1035
Lys Leu Gly Arg Val Gln Glu Phe Asn Ser Gly Leu Leu His Trp Gln		1040
	1045	1050
Leu Gly Gly Gly Asp Thr Thr Glu His Ile Gln Thr His Phe Glu Ser		1055
	1060	1065
Lys Met Glu Ile Pro Pro Arg Arg Arg Pro Pro Pro Pro Leu Ser Ser		1070
	1075	1080
Ala Gly Lys Lys Lys Glu Leu Ala Gly Lys Gly Asp Ser Glu Glu Gln		1085
	1090	1095
Gln Glu Lys Ser Ile Ile Ala Thr Ile Asp Asp Val Leu Ser Ala Arg		1100
1105	1110	1115
Pro Gly Ala Leu Pro Glu Asp Ala Asn Pro Gly Pro Gln Thr Glu Ser		1120
	1125	1130
Ser Lys Phe Pro Phe Gly Ile Gln Gln Ala Lys Ser His Arg Asn Ile		1135
	1140	1145
Lys Leu Leu Glu Asp Glu Pro Arg Ser Arg Asp Glu Thr Pro Leu Cys		1150
	1155	1160
Thr Ile Ala His Trp Gln Asp Ser Leu Ala Lys Arg Cys Ile Cys Val		1165
	1170	1175
Ser Asn Ile Val Arg Ser Leu Ser Phe Val Pro Gly Asn Asp Ala Glu		1180

1185                      1190                      1195                      1200  
 Met Ser Lys His Pro Gly Leu Val Leu Ile Leu Gly Lys Leu Ile Leu  
                                  1205                      1210                      1215  
 Leu His His Glu His Pro Glu Arg Lys Arg Ala Pro Gln Thr Tyr Glu  
                                  1220                      1225                      1230  
 Lys Glu Glu Asp Glu Asp Lys Gly Val Ala Cys Ser Lys Asp Glu Trp  
                                  1235                      1240                      1245  
 Trp Trp Asp Cys Leu Glu Val Leu Arg Asp Asn Thr Leu Val Thr Leu  
                                  1250                      1255                      1260  
 Ala Asn Ile Ser Gly Gln Leu Asp Leu Ser Ala Tyr Thr Glu Ser Ile  
 1265                      1270                      1275                      1280  
 Cys Leu Pro Ile Leu Asp Gly Leu Leu His Trp Met Val Cys Pro Ser  
                                  1285                      1290                      1295  
 Ala Glu Ala Gln Asp Pro Phe Pro Thr Val Gly Pro Asn Ser Val Pro  
                                  1300                      1305                      1310  
 Ser Pro Gln Arg Leu Val Leu Glu Thr Leu Cys Lys Leu Ser Ile Gln  
                                  1315                      1320                      1325  
 Asp Asn Asn Val Asp Leu Ile Leu Ala Thr Pro Pro Phe Ser Arg Gln  
                                  1330                      1335                      1340  
 Glu Lys Phe Tyr Ala Thr Leu Val Arg Tyr Val Gly Asp Arg Lys Asn  
 1345                      1350                      1355                      1360  
 Pro Val Cys Arg Glu Met Ser Met Ala Leu Leu Ser Asn Leu Ala Gln  
                                  1365                      1370                      1375  
 Gly Asp Ala Leu Ala Ala Arg Ala Ile Ala Val Gln Lys Gly Ser Ile  
                                  1380                      1385                      1390  
 Gly Asn Leu Ile Ser Phe Leu Glu Asp Gly Val Thr Met Ala Gln Tyr  
                                  1395                      1400                      1405  
 Gln Gln Ser Gln His Asn Leu Met His Met Gln Pro Pro Pro Leu Glu  
                                  1410                      1415                      1420  
 Pro Pro Ser Val Asp Met Met Cys Arg Ala Ala Lys Ala Leu Leu Ala  
 1425                      1430                      1435                      1440  
 Met Ala Arg Val Asp Glu Asn Arg Ser Glu Phe Leu Leu His Glu Gly  
                                  1445                      1450                      1455  
 Arg Leu Leu Asp Ile Ser Ile Ser Ala Val Leu Asn Ser Leu Val Ala  
                                  1460                      1465                      1470  
 Ser Val Ile Cys Asp Val Leu Phe Gln Ile Gly Gln Leu  
                                  1475                      1480                      1485

&lt;210&gt; 1039

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1039

gcaggagcca gggatgctgc tgaacatccc gcagtgcacg agacaggcct ccaccacacg  
 60  
 gaattacctt ggcctgaggt gttacgagag cacagagaga aaccaggtac agacgcgggg  
 120  
 cagaggggag agaggggagag agtgtgagag ctaagggttc gggagaagac tttgtggaaa  
 180  
 aagtcttttg ctgggtcctg caacatagcc aggattcagt gacaggtgag gaccactcca  
 240  
 gattttgtat gtattgaagg ccctgaatac ttttttgaaa gagaatgaca tgagtacacc  
 300

tggtcagcca cacgtgagag gggttggagg agggaagtac cagaggcagg gagaccaggt  
360

agaaagacct cgccatagt

379

<210> 1040

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1040

Met	Ala	Arg	Ser	Phe	Tyr	Leu	Val	Ser	Leu	Pro	Leu	Val	Leu	Pro	Ser
1				5				10					15		
Ser	Asn	Pro	Ser	His	Val	Trp	Leu	Thr	Arg	Cys	Thr	His	Val	Ile	Leu
			20				25					30			
Phe	Gln	Lys	Ser	Ile	Gln	Gly	Leu	Gln	Tyr	Ile	Gln	Asn	Leu	Glu	Trp
		35				40					45				
Ser	Ser	Pro	Val	Thr	Glu	Ser	Trp	Leu	Cys	Cys	Arg	Thr	Gln	Pro	Lys
	50				55					60					
Thr	Phe	Ser	Thr	Lys	Ser	Ser	Pro	Glu	Thr	Leu	Ala	Leu	Thr	Leu	Ser
65				70					75					80	
Pro	Ser	Leu	Pro	Ser	Ala	Pro	Arg	Leu	Tyr	Leu	Val	Ser	Leu	Cys	Ala
			85					90					95		
Leu	Val	Thr	Pro	Gln	Ala	Lys	Val	Ile	Pro	Cys	Gly	Gly	Gly	Leu	Ser
			100				105						110		
Arg	Ala	Leu	Arg	Asp	Val	Gln	Gln	His	Pro	Trp	Leu	Leu			
		115					120					125			

<210> 1041

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1041

ttagtgcccg tggaggccat cggctacatc gcgagtattg acaaggccga tatgtcaatc  
60

gaaacggcgt acctgccgcg gctggttggtt tccttgccc tgaccatccc ggtgctcgcc  
120

ttgtcgatga tcccgccct gcacttccc cattggccgt tgtgggcgtt ggcgcttacc  
180

accccggtgg tggtctgggg tgccctggccg ctgcaccacg ccgcgtggac caacctgcgg  
240

cacggcgcgg ccatcatgga caccctggtg tcgctcgccg tcctcacttc gtacctctgg  
300

tcggtatgga tgctgaccac aggcggcgag cacctctacc tggaggtagc cgtccaccgt  
360

cacgacgctg atcctggccg gcaaattt  
388

<210> 1042

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1042  
 Leu Val Ala Val Glu Ala Ile Gly Tyr Ile Ala Ser Ile Asp Lys Ala  
 1 5 10 15  
 Asp Met Ser Ile Glu Thr Ala Tyr Leu Pro Arg Leu Leu Val Ser Leu  
 20 25 30  
 Ala Leu Thr Ile Pro Val Leu Ala Leu Ser Met Ile Pro Ala Leu His  
 35 40 45  
 Phe Pro His Trp Pro Leu Trp Ala Leu Ala Leu Thr Thr Pro Val Val  
 50 55 60  
 Phe Trp Gly Ala Trp Pro Leu His His Ala Ala Trp Thr Asn Leu Arg  
 65 70 75 80  
 His Gly Ala Ala Ile Met Asp Thr Leu Val Ser Leu Gly Val Leu Thr  
 85 90 95  
 Ser Tyr Leu Trp Ser Val Trp Met Leu Thr Thr Gly Gly Glu His Leu  
 100 105 110  
 Tyr Leu Glu Val Ala Val His Arg His Asp Ala Asp Pro Gly Arg Gln  
 115 120 125  
 Ile

<210> 1043  
 <211> 555  
 <212> DNA  
 <213> Homo sapiens

<400> 1043  
 accggtgaaa ccctgatcgg ccaatcggtt tccaccgttc ccggcggcaa gggcgcaaac  
 60  
 caggcggtcg ctctggcgcg tcttggggcc gaagtcgcga tggtcgggtg cgtgggtacc  
 120  
 gatgcctacg gcgcgcaatt acgcgacgca ttgttggtgg aaggcatcga ttgccaggcc  
 180  
 gtcagcaccg tcgacgggtc cagcgggtgt gcgctgatcg tggtaggatga cagcagccag  
 240  
 aatgcgatcg ttatcgtcgc cggtagcaat ggcgagctga ctccggccaa gttacagacc  
 300  
 tttgacagcg tgctgcaggc tgccgacgtg attgtctgcc agcttgagac gccgatggac  
 360  
 actgtcggcc atgcgcctaa gcgcggtcgc gaactgggca agacgggtgat cctcaatccg  
 420  
 gcgcgggcca gcggcccgtt gcctgaggat tggtagcccg ccatcgatta cctgattccc  
 480  
 aacgaaagcg aagcctcggc cttgagtggc gtggtggtgg attcactgga cagcgccaag  
 540  
 gtcgctgcta cgcgt  
 555

<210> 1044  
 <211> 185  
 <212> PRT  
 <213> Homo sapiens

<400> 1044  
 Thr Gly Glu Thr Leu Ile Gly Gln Ser Phe Ser Thr Val Pro Gly Gly

```

      1           5           10           15
Lys Gly Ala Asn Gln Ala Val Ala Ser Ala Arg Leu Gly Ala Glu Val
      20           25           30
Ala Met Val Gly Cys Val Gly Thr Asp Ala Tyr Gly Ala Gln Leu Arg
      35           40           45
Asp Ala Leu Leu Val Glu Gly Ile Asp Cys Gln Ala Val Ser Thr Val
      50           55           60
Asp Gly Ser Ser Gly Val Ala Leu Ile Val Val Asp Asp Ser Ser Gln
      65           70           75           80
Asn Ala Ile Val Ile Val Ala Gly Ser Asn Gly Glu Leu Thr Pro Ala
      85           90           95
Lys Leu Gln Thr Phe Asp Ser Val Leu Gln Ala Ala Asp Val Ile Val
      100          105          110
Cys Gln Leu Glu Thr Pro Met Asp Thr Val Gly His Ala Pro Lys Arg
      115          120          125
Gly Arg Glu Leu Gly Lys Thr Val Ile Leu Asn Pro Ala Pro Ala Ser
      130          135          140
Gly Pro Leu Pro Glu Asp Trp Tyr Ala Ala Ile Asp Tyr Leu Ile Pro
      145          150          155          160
Asn Glu Ser Glu Ala Ser Ala Leu Ser Gly Val Val Val Asp Ser Leu
      165          170          175
Asp Ser Ala Lys Val Ala Ala Thr Arg
      180          185

```

&lt;210&gt; 1045

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1045

```

ctattgccat actaccgccg cggcaacctt caggacatga tcaacgccaa cctcttcaat
60
cactccaaat tccccgagac gcaccttatg aatctatttc tcggcgctctg caaggccctg
120
cgcgccatgc acgattacca cgcaccgccg gcagagcgca tgccaattgg gcaccgaagg
180
cagaccacca cccaggtgca aagcaacagt ggtagagcgg tcgctcatcg acgaaacgta
240
cggaagaaga cgaagagacg gagcaggaaa gacctgttat ggaatcacag aaccacatcg
300
ggcagggcgg cgagcacaaa accatatgcg catcgcgaca ttaaaccagg tacgtgctgc
360
aagtcctcg g
371

```

&lt;210&gt; 1046

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1046

```

Leu Leu Pro Tyr Tyr Arg Arg Gly Asn Leu Gln Asp Met Ile Asn Ala
1           5           10           15
Asn Leu Phe Asn His Ser Lys Phe Pro Glu Thr His Leu Met Asn Leu

```

<400> 1048  
Xaa Ala Gln Lys Asp Leu Asp Glu Ala Leu Pro Ala Leu Asp Ala Ala



1	5	10	15
Leu Ala Ser Leu Arg Asn Leu Asn Lys Asn Glu Val Thr Gln Val Arg			
20	25	30	
Ala Met Gln Arg Pro Pro Pro Gly Val Lys Leu Val Ile Glu Ala Val			
35	40	45	
Cys Ile Met Lys Gly Ile Lys Pro Lys Lys Val Pro Gly Glu Lys Pro			
50	55	60	
Gly Thr Lys Val Asp Asp Tyr Trp Glu Pro Gly Lys Gly Leu Leu Gln			
65	70	75	80
Asp Pro Gly His Phe Leu Glu Ser Leu Phe Lys Phe Asp Lys Asp Asn			
85	90	95	
Ile Gly Asp Val Val Ile Lys Ala Ile Gln Pro Tyr Ile Asp Asn Glu			
100	105	110	
Glu Phe Gln Pro Ala Thr Ile Ala Lys Val Ser Lys Gly Cys Pro Phe			
115	120	125	
Ile Trp Pro Trp Gly Gly Ala Met Pro Lys Tyr Pro Phe Val Ala Lys			
130	135	140	
Ala Val Glu Pro Lys Arg Gln Ala Leu Leu Glu Ala Gln Asp Asp Leu			
145	150	155	160
Gly Val Thr Gln Arg Ile Leu Asp Glu Ala Lys Gln Arg Leu Arg Glu			
165	170	175	
Val Glu Asp Gly Ile Ala Thr Met Gln Ala Lys Tyr Arg Glu Cys Ile			
180	185	190	
Thr Lys Lys Glu Glu Leu Glu Leu Lys Cys Glu Gln Cys Glu Gln Arg			
195	200	205	
Leu Gly His Ala Gly Lys Val Arg Thr Leu Leu Leu Gln Gly Leu Gln			
210	215	220	
Ala Gly Pro Ala Gln Thr Gly Ala Arg Lys Asp Gln Gly Ala Gly Gly			
225	230	235	240
Ser Trp Gly Gly Cys Pro Thr Pro Ser Leu Ala			
245	250		

&lt;210&gt; 1049

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1049

cgcagcaata gctgcacttg accagactgg gctttgcaat aagcgcattc cccgggctga  
 60  
 atgctgcaga tccttacagg ctgactgcag ggtgtttcag attctcctgg agtcacacgt  
 120  
 gccagcttga tttcaagaaa caactagaat aacagttttc tgataagaag tctatagcac  
 180  
 tttatggctt acataatcca gagatagatg ggctgggcat gattcccatt ttctgttggg  
 240  
 gaaaccgact cacagagaag ttaagggaca agtataaagt gatgaaactg tgtactgaac  
 300  
 ctcatgtctc ccagactccc ggggtccccg gctttttctc ggggcgggcc cattcacatt  
 360  
 gcaattcatg gccggggcaa atgctcacc acagagatat taagcactcc aacactccat  
 420  
 ccaccagggt gcagccaaag gattcagaag acaatgatca ttccatcagc atgcactatg  
 480

cagctaaaaga aagggttttgg catgctctgc tttattgttt cacagaagat aagaaaataa  
 540  
 actgcaaagt aacttaag  
 558

<210> 1050  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<400> 1050  
 Met Ile Pro Ile Phe Cys Trp Gly Asn Arg Leu Thr Glu Lys Leu Arg  
 1 5 10 15  
 Asp Lys Tyr Lys Val Met Lys Leu Cys Thr Glu Pro His Val Ser Gln  
 20 25 30  
 Thr Pro Gly Ser Pro Gly Phe Phe Ser Gly Arg Pro His Ser His Cys  
 35 40 45  
 Asn Ser Trp Pro Gly Gln Met Leu Thr His Arg Asp Ile Lys His Ser  
 50 55 60  
 Asn Thr Pro Ser Thr Arg Leu Gln Pro Lys Asp Ser Glu Asp Asn Asp  
 65 70 75 80  
 His Ser Ile Ser Met His Tyr Ala Ala Lys Glu Arg Phe Trp His Ala  
 85 90 95  
 Leu Leu Tyr Cys Phe Thr Glu Asp Lys Lys Ile Asn Cys Lys Val Thr  
 100 105 110

<210> 1051  
 <211> 317  
 <212> DNA  
 <213> Homo sapiens

<400> 1051  
 gcgttgagtc gggatgtcgc attcatgccc ggcgaacctt tttttgccga accggagcgt  
 60  
 aatccgggta atcttcgtct caatttcagt cacatcgac cggagcgtct ggacgaagggt  
 120  
 ctcaagcgcc tggctgctgt catccgtcac gcacaggctg cacaagcggc ttaaggggag  
 180  
 ggccatgtac aaggtttatg gcgattacca gtcgggcaat tgctacaaga tcaagctgat  
 240  
 gctgcacctg ctggggcagg aatatacgtg gcacccgggg gacatcctca aggtgacacc  
 300  
 gagaccccg aattttt  
 317

<210> 1052  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 1052  
 Ala Leu Ser Arg Asp Val Ala Phe Met Pro Gly Glu Pro Phe Phe Ala  
 1 5 10 15  
 Glu Pro Glu Arg Asn Pro Gly Asn Leu Arg Leu Asn Phe Ser His Ile

20                      25                      30  
 Ala Pro Glu Arg Leu Asp Glu Gly Leu Lys Arg Leu Ala Ala Val Ile  
                     35                      40                      45  
 Arg His Ala Gln Ala Ala Gln Ala Ala  
                     50                      55

<210> 1053

<211> 318

<212> DNA

<213> Homo sapiens

<400> 1053

caattggcta cgcgatccga acgggcgcat ggggtctctat gactggcaag cgcgcgctcg  
 60  
 cggggagtg ggcctcgact atgcctacgc gatgtcggtg aacctgacca ccgagaaccg  
 120  
 gcgtgcctgg gaacgcgacc tgctcgagcg ttatctgtgg cgctcgccg aagaggggtg  
 180  
 cgccaacccg cctcgttcg agcaagcgtg gctacgctac cggcaacagc cgttccacgt  
 240  
 cgggatcttc tcactcttga ccacgcggcg cgagcgcttt caaccggcca tgcaaccggc  
 300  
 ggactcnnnn ccccnnc  
 318

<210> 1054

<211> 96

<212> PRT

<213> Homo sapiens

<400> 1054

Met Gly Leu Tyr Asp Trp Gln Ala Val Ala Arg Gly Glu Trp Ala Leu  
 1                      5                      10                      15  
 Asp Tyr Ala Tyr Ala Met Ser Val Asn Leu Thr Thr Glu Asn Arg Arg  
                     20                      25                      30  
 Ala Trp Glu Arg Asp Leu Leu Glu Arg Tyr Leu Trp Arg Leu Ala Glu  
                     35                      40                      45  
 Glu Gly Val Ala Asn Pro Pro Ser Phe Glu Gln Ala Trp Leu Arg Tyr  
                     50                      55                      60  
 Arg Gln Gln Pro Phe His Val Gly Ile Phe Ser Leu Leu Thr Ile Gly  
 65                      70                      75                      80  
 Ala Gly Arg Phe Gln Pro Ala Met Gln Pro Ala Asp Ser Xaa Pro Xaa  
                     85                      90                      95

<210> 1055

<211> 391

<212> DNA

<213> Homo sapiens

<400> 1055

tacaatgtat catcaaccag aaatacaatg agaaccacct gccagtctcc caaatactat  
 60  
 ctgcagccac tcatttaact ctctgggcta gctccacgtg ggccgtctga actctcttag  
 120

aagaatcatc tctctgctca ggcaccggga gcaaggggca tctgtcgctc tgcagaacgg  
 180  
 aggggaccag gcctgatgaa caccatcctg ggcccagaaa cctgggaggg taaagagaac  
 240  
 tgccaggggt gaagtccaag gatgggaaaa aggcctccgg ggcagagtcc tgaaatgtca  
 300  
 gaagtacacc aaagaggaaa cagcatcacg ttattgctga ggcagggcct cattctgttg  
 360  
 ccaaggctgc agtgcagtgg tgacaccatg g  
 391

<210> 1056

<211> 83

<212> PRT

<213> Homo sapiens

<400> 1056

Met	Val	Ser	Pro	Leu	His	Cys	Ser	Leu	Gly	Asn	Arg	Met	Arg	Pro	Cys
1			5					10					15		
Leu	Ser	Asn	Asn	Val	Met	Leu	Phe	Pro	Leu	Trp	Cys	Thr	Ser	Asp	Ile
		20					25					30			
Ser	Gly	Leu	Cys	Pro	Gly	Gly	Leu	Phe	Pro	Ile	Leu	Gly	Leu	His	Pro
		35				40					45				
Trp	Gln	Phe	Ser	Leu	Pro	Ser	Gln	Val	Ser	Gly	Pro	Arg	Met	Val	Phe
	50					55				60					
Ile	Arg	Pro	Gly	Pro	Leu	Arg	Ser	Ala	Glu	Arg	Gln	Met	Pro	Leu	Ala
65					70					75				80	
Pro	Gly	Ala													

<210> 1057

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1057

gaattccctg cgcgtgtgac gccggtcgcc gagcaactcg gcgtgtcgct gacgctgcat  
 60  
 cccgatgac cgcgcgtcc gctgttcggg ttgccgcgca ttgcgtccag cgccgaggac  
 120  
 tatcaggcgc tggtcgatgc ggtaccgtcc aaggcgaacg gcattctgct gtgcacgggt  
 180  
 tcgctcggcg tgcgcgcgga gaacgatctg cctgaaatgg ccgaacgttt cggcccgcgt  
 240  
 atgcctttg cgcattctgc cgcgaccaag cgcgacgccg atggcctgtc gtttcatgaa  
 300  
 tccgaccatc tcgacggcga tgtcgacatg gtcgcgtgct c  
 341

<210> 1058

<211> 113

<212> PRT

<213> Homo sapiens

&lt;400&gt; 1058

Glu Phe Pro Ala Arg Val Thr Pro Val Ala Glu Gln Leu Gly Val Ser  
 1 5 10 15  
 Leu Thr Leu His Pro Asp Asp Pro Pro Arg Pro Leu Phe Gly Leu Pro  
 20 25 30  
 Arg Ile Ala Ser Ser Ala Glu Asp Tyr Gln Ala Leu Phe Asp Ala Val  
 35 40 45  
 Pro Ser Lys Ala Asn Gly Ile Cys Leu Cys Thr Gly Ser Leu Gly Val  
 50 55 60  
 Arg Ala Glu Asn Asp Leu Pro Glu Met Ala Glu Arg Phe Gly Pro Arg  
 65 70 75 80  
 Ile Ala Phe Ala His Leu Arg Ala Thr Lys Arg Asp Ala Asp Gly Leu  
 85 90 95  
 Ser Phe His Glu Ser Asp His Leu Asp Gly Asp Val Asp Met Val Ala  
 100 105 110  
 Cys

&lt;210&gt; 1059

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1059

nagctgaccg gctggcagat caacatcatg acgccggaag aaagcgtgaa ccgccgggaa  
 60  
 gtcgagcgtt cgggcctgcg caccacgttc atgaacaagc tggacgtcga tgaggaagtc  
 120  
 gccgacatcc tgatcgacga aggtttcacc ggtatcgagg aaatcgcta cgtcccatg  
 180  
 caggaactgc tggagatcga ggcgttcgac gaagacacca tcaacgagtt gcgcgcccgt  
 240  
 gcccgcaatg cgctgctgac cgaggccatc gcccggaag agcgcttga gaccgcgcag  
 300  
 gatctgcttg aactcgaagg cgtgacgccg gaactggctg ccaagctggc cgagcgtcaa  
 360  
 gtgcgtacgc gt  
 372

&lt;210&gt; 1060

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1060

Xaa Leu Thr Gly Trp Gln Ile Asn Ile Met Thr Pro Glu Glu Ser Val  
 1 5 10 15  
 Asn Arg Arg Glu Val Glu Arg Ser Gly Leu Arg Thr Thr Phe Met Asn  
 20 25 30  
 Lys Leu Asp Val Asp Glu Glu Val Ala Asp Ile Leu Ile Asp Glu Gly  
 35 40 45  
 Phe Thr Gly Ile Glu Glu Ile Ala Tyr Val Pro Met Gln Glu Leu Leu  
 50 55 60  
 Glu Ile Glu Ala Phe Asp Glu Asp Thr Ile Asn Glu Leu Arg Ala Arg



<210> 1063  
<211> 3760  
<212> DNA  
<213> Homo sapiens

<400> 1063  
ntagtagaga cagggtttca ccatgttggc caggctggtc ttgaactcct gagcttgtga  
60  
tccacccgcc tcagcctccc aaagtgetgg gattacaggc gtgacgactg caccagcct  
120  
taaggtctta taactagtaa atatctgcat taaagaacga gttgaatgaa aattctgata  
180  
aattcctact taaagtgtat ccaaagaaaa cggaaaaagt ctaggagtta gtgatattag  
240  
attcagaaga atgagctttg taattcttaa aaattagtct cagaatagaa aggattttaa  
300  
aagtaattga gtaaaagtcac aggaaatgtg accatataaa ggaatggctc taaatgtatt  
360  
aatccagaag gaagcaacag gttaaacagt aagaggtaag aaacaaaaaa taaggaaacga  
420  
gagagagaga gtgacagggg gagagagaca gagcggggaa ggagagaatg agaaggaaaa  
480  
tcaggaaaac gaggagaaac agaattaagg aggtgatact ggaatagtat cagaccattc  
540  
tgaatcaatt taagaattgc catgtctaata tcttatatgg aagatttgaa atacaaggat  
600  
attgaaagga ataacaaatt ataataaatg catagaaatc cttatgtaat ccaaggctcat  
660  
taatttgaag gaagacatca agaaaatgtg atctagaaat aaagggttgag attgctccat  
720  
ttacaaaatt attatgctct ataactcttc catatgcaaa tatttcatat tccctctttt  
780  
gtcccatgga catatttcac agcaacaacg aatcaagtgc tgacctaaat ggggtatctg  
840  
ttaaaactta gtatattgat atccttcacc ccactccagg aacgttcgct acgctaggac  
900  
tgcattcttg gaacagaatt ttagagatga tcatctctta catcagaagc aggatctaaa  
960  
tgatccctgg atgccaatt tcctgaccct gctattgttg tgggtggcaa gataagagga  
1020  
gttgcacac agatgaaaaa gtaaggccga agaagaccag agaagagttg gttgaatgtg  
1080  
tagatataag atccatctgt gacattgtag aatgaaattt caccggcttc atagtccaag  
1140  
aaaatcccaa tgcagtgagg actttccagt tggagaagag gcactgatgg ggaggcaagg  
1200  
accatgtact cattcccttt cagcagccac agggcccaga cccattctc aggagatggc  
1260  
gtggtttccc cttttcttgg cagtgtgtct tgacagaccc ctaaacccca ctctgctcct  
1320  
tctcccacca gaacctccca gtaatgcctc cctgatgaga agctctgcaa acccaggatg  
1380  
cagggccatg tgtcaaatcg ctcagggttg ttggggacat ccctccatgg ttctccatcc  
1440

tgcacactgc gcaggctggc ggtcaagagc agactcgggt gcgccgtggc gggatccagc  
1500  
tttacatcca cttggaactt ccttaagagc tccctcctcc cagggatgca gcatgctgtc  
1560  
ttcagttcca tggggatggt ctctgcttcc agccttgtga cagccttact tctgctcagg  
1620  
actcctctca caccctccag cagaccagc gctgggagct ggcacctctc ctgcagctca  
1680  
tccgccagct ccttcagggc cttgctctgc tggaccagcc ggetcttgct ctcccgagc  
1740  
ctctgcagcg tcgctcgtc ctccgctcc agccgctca gctaccaggt aaagctccag  
1800  
atggctctgg aacttatgag gaaagagtg gaggacgcct tgactcagga ggccaacgtg  
1860  
gggaaaaaga ctgtcatttg gaaggagaaa gtggaaatgc agaggcagcg cttcagattg  
1920  
gagtttgaga agcatcgtgg ctttctggcc caggaggagc aacggcagct gagggcgctg  
1980  
gaggcggagg agcgagcgac gctgcagaga ctgcgggaga gcaagagccg gctggtccag  
2040  
cagagcaagg ccctgaagga gctggcggat gagctgcagg agaggtgcca gcgccagcc  
2100  
ctgggtctgc tggaggggtg gagaggagtc ctgagcagaa gtaaggctgt cacaaggctg  
2160  
gaagcagaga acatcccat ggaactgaag acagcatgct gcatccctgg gaggaggag  
2220  
ctcttaagga agttccaagt ggatgtaaag ctggatcccg ccacggcgca cccgagctg  
2280  
ctcttgaccg ccgacctgc cagtgtgcag gatggagaac catggaggga tgtccccaac  
2340  
aaccctgagc gatttgacac atggccctgc atcctgggtt tgcagagctt ctcatcagg  
2400  
aggcattact gggaggttct ggtgggagaa ggagcagagt ggggtttagg ggtctgtcaa  
2460  
gacacactgc caagaaagg ggaaccatg ccctctctg agaatggggt ctgggccctg  
2520  
tggctgctga aagggaatga gtacatggtc cttgcctccc catcagtgc tttctccaa  
2580  
ctggaaagtc ctgctgcat tgggattttt ttggactatg aagccggtga aatttcattc  
2640  
tacaatgtca cagatggatc ttatatctac acattcaacc aactcttctc tggctcttct  
2700  
cggccttact ttttcatctg tgatgcaact cctcttatct tgccaccac gacaatagca  
2760  
gggtcaggaa attgggcac cagggatcat ttagatcctg cttctgatgt aagagatgat  
2820  
catctctaaa attctgttcc caagatgcag tcctagcgta gcgaacgttc ctggagtggt  
2880  
gtgaaggata tcaatatact aagttttaac agatacccca ttaggtcag cacttgattc  
2940  
gttggtgctg tgaaatatgt ccatgggaca aaagaggga tatgaaatat ttgcatatgg  
3000  
gaagattata gagcataata attttgtaaa tggagcaatc tcaacctcta tttctagatc  
3060



acattttctt gatgtcttcc ttcaaattaa tgaccttgga ttacataagg atttctatgc  
 3120  
 attcattata atttgttatt cctttcaata tccttgtatt tcaaactctc catataagaa  
 3180  
 ttagacatgg caattcttaa attgattcag aatgggtctga tactattcca gtatcacctc  
 3240  
 ctttaattctg tttctcctcg ttttctgat tttccttctc attctctcct tccccgctct  
 3300  
 gtctctctct cctgtcact ctctctctct cgttccttat ttttgtttc ttacctctta  
 3360  
 ctgtttaacc tgttgcttcc ttctggatta atacatttag agccattcct ttatatggtc  
 3420  
 acatttccta tgactttact caattacttt taaaatcctt tctattctga gactaatttt  
 3480  
 taagaattac aaagctcatt cttctgaatc taatatcact aactcctaga ctttttccgt  
 3540  
 tttcttttga tacactttaa gtaggaattt atcagaattt tcattcaact cgttctttaa  
 3600  
 tgcagatatt tactgggtat aagaccttaa ggctgggtgc agtgggtcac gcctgtggtc  
 3660  
 ccagcgcttt ggggggctga ggcggtgga tcacaggctc gggagttcgg ggccagcctg  
 3720  
 gccagcatgg tgaaaccctg tctctactag aaaaaaaaaa  
 3760

&lt;210&gt; 1064

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1064

Met	Gln	Gly	His	Val	Ser	Asn	Arg	Ser	Gly	Leu	Leu	Gly	Thr	Ser	Leu
1				5					10					15	
His	Gly	Ser	Pro	Ser	Cys	Thr	Leu	Arg	Ser	Ala	Val	Lys	Ser	Arg	
			20					25				30			
Leu	Gly	Cys	Ala	Val	Ala	Gly	Ser	Phe	Thr	Ser	Thr	Trp	Asn	Phe	
		35					40					45			
Leu	Lys	Ser	Ser	Leu	Leu	Pro	Gly	Met	Gln	His	Ala	Val	Phe	Ser	Ser
	50					55				60					
Met	Gly	Met	Phe	Ser	Ala	Ser	Ser	Leu	Val	Thr	Ala	Leu	Leu	Leu	Leu
65					70					75				80	
Arg	Thr	Pro	Leu	Thr	Pro	Ser	Ser	Arg	Pro	Arg	Ala	Gly	Arg	Trp	His
				85				90						95	
Leu	Ser	Cys	Ser	Ser	Ser	Ala	Ser	Ser	Phe	Arg	Ala	Leu	Leu	Cys	Trp
		100					105						110		
Thr	Ser	Arg	Leu	Leu	Leu	Ser	Arg	Ser	Leu	Cys	Ser	Val	Ala	Arg	Ser
		115					120					125			
Ser	Ala	Ser	Ser	Arg	Leu	Ser	Tyr	Gln	Val	Lys	Leu	Gln	Met	Ala	Leu
	130					135					140				
Glu	Leu	Met	Arg	Lys	Glu	Leu	Glu	Asp	Ala	Leu	Thr	Gln	Glu	Ala	Asn
145				150						155				160	
Val	Gly	Lys	Lys	Thr	Val	Ile	Trp	Lys	Glu	Lys	Val	Glu	Met	Gln	Arg
				165				170						175	
Gln	Arg	Phe	Arg	Leu	Glu	Phe	Glu	Lys	His	Arg	Gly	Phe	Leu	Ala	Gln

180 185 190  
 Glu Glu Gln Arg Gln Leu Arg Arg Leu Glu Ala Glu Glu Arg Ala Thr  
 195 200 205  
 Leu Gln Arg Leu Arg Glu Ser Lys Ser Arg Leu Val Gln Gln Ser Lys  
 210 215 220  
 Ala Leu Lys Glu Leu Ala Asp Glu Leu Gln Glu Arg Cys Gln Arg Pro  
 225 230 235 240  
 Ala Leu Gly Leu Leu Glu Gly Val Arg Gly Val Leu Ser Arg Ser Lys  
 245 250 255  
 Ala Val Thr Arg Leu Glu Ala Glu Asn Ile Pro Met Glu Leu Lys Thr  
 260 265 270  
 Ala Cys Cys Ile Pro Gly Arg Arg Glu Leu Leu Arg Lys Phe Gln Val  
 275 280 285  
 Asp Val Lys Leu Asp Pro Ala Thr Ala His Pro Ser Leu Leu Leu Thr  
 290 295 300  
 Ala Asp Leu Arg Ser Val Gln Asp Gly Glu Pro Trp Arg Asp Val Pro  
 305 310 315 320  
 Asn Asn Pro Glu Arg Phe Asp Thr Trp Pro Cys Ile Leu Gly Leu Gln  
 325 330 335  
 Ser Phe Ser Ser Gly Arg His Tyr Trp Glu Val Leu Val Gly Glu Gly  
 340 345 350  
 Ala Glu Trp Gly Leu Gly Val Cys Gln Asp Thr Leu Pro Arg Lys Gly  
 355 360 365  
 Glu Thr Met Pro Ser Pro Glu Asn Gly Val Trp Ala Leu Trp Leu Leu  
 370 375 380  
 Lys Gly Asn Glu Tyr Met Val Leu Ala Ser Pro Ser Val Pro Leu Leu  
 385 390 395 400  
 Gln Leu Glu Ser Pro Arg Cys Ile Gly Ile Phe Leu Asp Tyr Glu Ala  
 405 410 415  
 Gly Glu Ile Ser Phe Tyr Asn Val Thr Asp Gly Ser Tyr Ile Tyr Thr  
 420 425 430  
 Phe Asn Gln Leu Phe Ser Gly Leu Leu Arg Pro Tyr Phe Phe Ile Cys  
 435 440 445  
 Asp Ala Thr Pro Leu Ile Leu Pro Pro Thr Thr Ile Ala Gly Ser Gly  
 450 455 460  
 Asn Trp Ala Ser Arg Asp His Leu Asp Pro Ala Ser Asp Val Arg Asp  
 465 470 475 480  
 Asp His Leu

&lt;210&gt; 1065

&lt;211&gt; 892

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1065

nacgcgtggt gtcattgggga ggtgggctgc agtgatgaga aaaggccggg ggctgtgcaa  
 60  
 taccatgctt cacaaggga gaagatcaaa gtgacctcc cccatggctt tggaaccttc  
 120  
 ttgtccagtc tggaaggggg gaagaagaga tgaggggaag gctgtccagg ggggtgcaag  
 180  
 gccctagaga cccagcagag aagggaactct ggccactgaa ggggacctcc cattgtggct  
 240

ctggttccct agagcagctc cagcttcttg gcctcccccg tctgatgctt agctcatccc  
 300  
 atccccctgga gtgctgtgga gcttagatga aacagcccag tgctcactct tcaatgagcc  
 360  
 caccagagc agcatcaaga tgcagttggc ggggtactgg aactggcttg gcaagggctg  
 420  
 cgcaggcaac aggtcccagc aagagtcagc tagcctagct cagccctgca cacctggaga  
 480  
 cctgggggtg ctccagacac ctcgccctt taggtccctt taattgaatg tgtgtggatc  
 540  
 agtgaagggt gaggaatcat ttctctatgg cccaagacgt ttctctctgc agttgtcatg  
 600  
 ttagtacctg ccagcttttc ctctcttaca taaatttcat gccagagcct ggaaatgtgt  
 660  
 gccctttgta ggaggggcat cacaggctgg ctcacctcag cagtgccagg cagagcccgt  
 720  
 ccctctcatt gcaggaggcg catgaagcgt gtctgggacc gagctgtgga gttcctggcc  
 780  
 tccaacgaat cccggatcca gacggagtcc caccgcgttg caggagagga catgctggtg  
 840  
 ttgagatgga ctaagccctc ttccttctct gactcagagc gataagcccg gg  
 892

<210> 1066

<211> 76

<212> PRT

<213> Homo sapiens

<400> 1066

Met	Cys	Ala	Leu	Cys	Arg	Arg	Gly	Ile	Thr	Gly	Trp	Leu	Thr	Ser	Ala
1				5					10					15	
Val	Pro	Gly	Arg	Ala	Arg	Pro	Ser	His	Cys	Arg	Arg	Arg	Met	Lys	Arg
			20					25					30		
Val	Trp	Asp	Arg	Ala	Val	Glu	Phe	Leu	Ala	Ser	Asn	Glu	Ser	Arg	Ile
		35				40					45				
Gln	Thr	Glu	Ser	His	Arg	Val	Ala	Gly	Glu	Asp	Met	Leu	Val	Leu	Arg
	50				55					60					
Trp	Thr	Lys	Pro	Ser	Ser	Phe	Ser	Asp	Ser	Glu	Arg				
65				70					75						

<210> 1067

<211> 418

<212> DNA

<213> Homo sapiens

<400> 1067

gaattcgagg tcaccgcgaa tgtgttccgc gaaggccacg acgccgtcgg ggctagtgtc  
 60  
 gttctcaccg atccccgagg caaccgtcac ctcaactgaca tgcaccaggt cgagccctgg  
 120  
 ggactagaca tctggaaagc ccgagtcctc gctgacatcg aaggcgactg gactatgcac  
 180  
 gttgaaggct ggtcagacac ctggggcacg tggcatcaca atgccaatgc caagctcgcc  
 240

gctgccatcg acgtcgaact ggtgtgcgcc gaaggccatg ccctcataaa cgaggcggtc  
 300  
 cggcacgccc agcaatccgg ggatactgac gcgatcacgg ctctgcgcca gaccgatgcc  
 360  
 aacctaaccc ttgaccgtgc ccccgactcg ctacaacagg tcatcaacac ctacgcgt  
 418

<210> 1068

<211> 139

<212> PRT

<213> Homo sapiens

<400> 1068

Glu	Phe	Glu	Val	Thr	Ala	Asn	Val	Phe	Arg	Glu	Gly	His	Asp	Ala	Val
1				5					10					15	
Gly	Ala	Ser	Val	Val	Leu	Thr	Asp	Pro	Glu	Gly	Asn	Arg	His	Leu	Thr
			20					25					30		
Asp	Met	His	Gln	Val	Glu	Pro	Trp	Gly	Leu	Asp	Ile	Trp	Lys	Ala	Arg
		35					40					45			
Val	Ser	Ala	Asp	Ile	Glu	Gly	Asp	Trp	Thr	Met	His	Val	Glu	Gly	Trp
	50					55				60					
Ser	Asp	Thr	Trp	Gly	Thr	Trp	His	His	Asn	Ala	Asn	Ala	Lys	Leu	Ala
65					70					75				80	
Ala	Ala	Ile	Asp	Val	Glu	Leu	Val	Cys	Ala	Glu	Gly	His	Ala	Leu	Ile
			85					90						95	
Asn	Glu	Ala	Val	Arg	His	Ala	Glu	Gln	Ser	Gly	Asp	Thr	Asp	Ala	Ile
			100					105					110		
Thr	Ala	Leu	Arg	Glu	Thr	Asp	Ala	Asn	Leu	Thr	Leu	Asp	Arg	Ala	Pro
		115					120						125		
Asp	Ser	Leu	Gln	Gln	Val	Ile	Asn	Thr	Tyr	Ala					
		130					135								

<210> 1069

<211> 371

<212> DNA

<213> Homo sapiens

<400> 1069

ntgtacaatt tccttgctgg aagtactgga gcgaatatga tacgggtctcc ggcctctcag  
 60  
 cagttcatat gccgtcactc ccagggaacca ccagtcaaca gcaaaggaat agcctgctcc  
 120  
 ttttctggag ctgaacatct cagggtgcat gtaaggcttg gtgccagcca tggaggagac  
 180  
 ctgcgttatc acctgcaaca gaacgtccac ttcaaggaag aaacagtga gctcttcac  
 240  
 tgtgagctgg tcatggccct ggactacctg cagaaccagc gcatcattca cagggatatg  
 300  
 aagcctgaca atattttact tgacgaacat gggcacgtgc acatcacaga tttcaacatt  
 360  
 gctgcatgc t  
 371

<210> 1070

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1070

```

Xaa Tyr Asn Phe Leu Ala Gly Ser Thr Gly Ala Asn Met Ile Arg Ser
 1      5      10      15
Pro Ala Ser Gln Gln Phe Ile Cys Arg His Ser Gln Gly Pro Pro Val
      20      25      30
Asn Ser Lys Gly Ile Ala Cys Ser Phe Ser Gly Ala Glu His Leu Arg
      35      40      45
Cys His Val Arg Leu Gly Ala Ser His Gly Gly Asp Leu Arg Tyr His
      50      55      60
Leu Gln Gln Asn Val His Phe Lys Glu Glu Thr Val Lys Leu Phe Ile
      65      70      75      80
Cys Glu Leu Val Met Ala Leu Asp Tyr Leu Gln Asn Gln Arg Ile Ile
      85      90      95
His Arg Asp Met Lys Pro Asp Asn Ile Leu Leu Asp Glu His Gly His
      100      105      110
Val His Ile Thr Asp Phe Asn Ile Ala Ala Met
      115      120

```

&lt;210&gt; 1071

&lt;211&gt; 998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1071

```

nnacgcgttt gtgtcgtcca tcagaagctg tgctcgattt gttaccgcaa gagcagcgtg
60
ggagtttcgt caaggaagac ggacaaatcg tcattgatga gaatggcaac agggtttgat
120
cccacccgaa gtacgtggcc ttggagtgcc attcgcactc cacttggcca ccgtttgcat
180
tcgacctaac cagcaattgc atctcgtttg acctgctcgc gttgtcaaca tcatagcaac
240
gagcggccaa tagcagagtt ctggtcatcc tgttcgccc ttcttcctat ttgaagcctc
300
agtttcagca aagagctgtt tatgagtttt ccgtcaaacg gcgcttgat aggcataggg
360
ggtataccta tgatgcgtgt attcacagtt aaaaaggttt ctctcatggg ccatacagct
420
tcaaacaag acgatcttct caaacgcgtg aaacgcatcg cggggcaaat ccaggccgtt
480
gagcgtgcac tggagtcgga tgccgattgc gcgaaaacat tgcattctgt agctgccaca
540
cgtggagcta tcaacggctt gatggacgaa attattgagg atcacgccag aaaacatgtg
600
gcgagcccaa cgcttagcga ttaataacgc aacaaggggtg tcgaagagct tcttgaagcc
660
attcgccgct actccaagtg aagaatccag gtacatgtcc atgagtagca gcccgaatat
720
cgagattagc cacatacatg accatgtgtt ccttgggtca gcacgcgaag aaaatgccaa
780

```

gcgtaccctt tgggttggtg cgcttacggt ggtgatgatg gttggcgaaa tcgtcgccgg  
840  
ctatctcact ggctcaatgg ctttacttgc cgacggggtt tcacaaggca accccatgca  
900  
ggcgcttttg gcatcgctgc agctgcctac ggttacgcaa aacgccacgc ttccagcagt  
960  
cgttatagct tcggtacggg caaggttgga gacctagg  
998

<210> 1072

<211> 72

<212> PRT

<213> Homo sapiens

<400> 1072

Met	Gly	His	Thr	Ala	Ser	Asn	Lys	Asp	Asp	Leu	Leu	Lys	Arg	Val	Lys
1				5				10				15			
Arg	Ile	Ala	Gly	Gln	Ile	Gln	Ala	Val	Glu	Arg	Ala	Leu	Glu	Ser	Asp
		20					25				30				
Ala	Asp	Cys	Ala	Lys	Thr	Leu	His	Leu	Val	Ala	Ala	Thr	Arg	Gly	Ala
		35				40				45					
Ile	Asn	Gly	Leu	Met	Asp	Glu	Ile	Ile	Glu	Asp	His	Ala	Arg	Lys	His
	50				55					60					
Val	Ala	Ser	Pro	Thr	Leu	Ser	Asp								
65					70										

<210> 1073

<211> 468

<212> DNA

<213> Homo sapiens

<400> 1073

tgtacaacac tcccatcctc tactctctgc atataccctg tatgtacttc atgttatagc  
60  
tacaatggac aattttctat tcttcaagta cactcttccc atgtcccaac tgggatgctt  
120  
ttccccact gataaaatct tgcttctctt caaactccta ggcaaatttc tctacttca  
180  
gaaagtcttg tttctccata tccttcgtaa ccaccacctg gtgcacatgc tgaaggcaga  
240  
attcattgtc tcctctcctt cactctcgaa tagctttgcc cagaccctca ggtactcctt  
300  
catcctctgt ataatatgtg gttttcacct ctttatgaac tcttttgat tctcattact  
360  
ggctctggaa cccagaacat accacgggtt caaggtatgt tttaatgaat tgaatggaat  
420  
aaattttggt gtgcttatgc agatacagat gccactaaac actgatca  
468

<210> 1074

<211> 134

<212> PRT

<213> Homo sapiens

&lt;400&gt; 1074

Met Asp Asn Phe Leu Phe Phe Lys Tyr Thr Leu Pro Met Ser Gln Leu  
 1 5 10 15  
 Gly Cys Phe Ser Pro Thr Asp Lys Ile Leu Leu Leu Phe Lys Leu Leu  
 20 25 30  
 Gly Lys Phe Leu Leu Leu Gln Lys Val Leu Phe Leu His Ile Leu Arg  
 35 40 45  
 Asn His His Leu Val His Met Leu Lys Ala Glu Phe Ile Val Ser Ser  
 50 55 60  
 Pro Ser Leu Ser Asn Ser Phe Ala Gln Thr Leu Arg Tyr Ser Phe Ile  
 65 70 75 80  
 Leu Cys Ile Ile Phe Gly Phe His Leu Phe Met Asn Ser Phe Val Phe  
 85 90 95  
 Ser Leu Leu Ala Leu Glu Pro Arg Thr Tyr His Gly Phe Lys Val Cys  
 100 105 110  
 Phe Asn Glu Leu Asn Gly Ile Asn Phe Val Val Leu Met Gln Ile Gln  
 115 120 125  
 Met Pro Leu Asn Thr Asp  
 130

&lt;210&gt; 1075

&lt;211&gt; 1633

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1075

gcgcgccagg gatgagtcctc agtacttccg ctttcatgct gacgaggaga tggaggggac  
 60  
 cagcagcaag aacaaacagc ttcgcaacga cttcaagctg gtggagaaca ttctggccaa  
 120  
 gcgcctgctg atcctgcccc aggaggagga ctatggcttt gacatcgagg agaagaacaa  
 180  
 ggctgtgggtg gtgaagtccg tccagagggg cttgctggct gaggtggctg gcctgcaggt  
 240  
 ggggaggaag atctactcca tcaatgagga cctggtgttc ctgcggccgt tttcagaggt  
 300  
 ggagtccatc ctcaaccagt ctttctgtc cgcgcgcct ctgcgcctcc tgggtggccac  
 360  
 gaaggccaaa gagatcatca aaatccccga ccagccggac aactgtgtct tccagattcg  
 420  
 tggagctgcc ccaccgtacg tctatgctgt ggggagaggc tctgaggcca tggctgcagg  
 480  
 gctctgtgct ggtcagtga ttctgaaggt caatggcagc aactgtatga acgatgggtg  
 540  
 ccctgaggtc ctggagcact tccaggcatt ccggagtcgg cgcgaagagg ccctgggct  
 600  
 gtaccagtgg atctaccaca cccatgagga tgcccaggaa gcacgagcca gtcaggaggc  
 660  
 ctccactgag gaccccgatg gcgagcaggc ccaggaggaa gaccaggctg attcagcctt  
 720  
 cccactgctg tccctgggtc cccggctgag cctgtgtgag ggcagcccca tggtcaccct  
 780  
 gactgtggac aacgtgcacc tggaacacgg cgtgggtgtat gagtatgtga gcacggcagg  
 840

cgtcagggtgc catgtgctgg agaagatcgt ggagccccgc ggctgcttcg gcctcaccgc  
 900  
 caagatcctc gaggcctttg ctgccaatga cagcgtcttc gtggagaact gcaggcgggt  
 960  
 catggccctg agcagcgcca tcgtgaccat gcccacttt gagttccgca acatctgtga  
 1020  
 caccaagctg gagagcattg gccagaggat tgcttgcctac caggagtttg cagcccaact  
 1080  
 gaagagcagg gtcagcccac ccttcaaaca agccccctg gagccccacc cgctgtgtgg  
 1140  
 cctacttctg ccccaaccaat tgccacatca acctcatgga agtgcctac cccaagacca  
 1200  
 cccctcagt gggcagggtcc ttcagcatcc gctttggacg caaacctcc ctcatcggtc  
 1260  
 ttgaccgga gcaaggccac ctgaacccca tgcgtacac ccagcactgc atcaccacca  
 1320  
 tggtgctcc ctccctggaag tgcttgctg ctgcagaggg tgatcccaa ggccagggtc  
 1380  
 tccatgatgg cagcttcggg ccagccagtg ggacccttg tcaggaagac cggggcctca  
 1440  
 gcttctact caagcaggag gaccgtgaga tccaggatgc ctacctgag ctcttcacca  
 1500  
 agctggatgt ggccctgaag gagatgaagc aatatgtcac ccagatcaac aggctgctgt  
 1560  
 ccaccatcac agagcccacc tcgggtgggt cctgcgacgc atccttggtg gaggaggcct  
 1620  
 cctccctgcc cct  
 1633

<210> 1076  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<400> 1076  
 His Gln Ala Gly Glu His Trp Pro Glu Asp Cys Leu Leu Pro Gly Val  
 1 5 10 15  
 Cys Ser Pro Thr Glu Glu Gln Gly Gln Pro Thr Leu Gln Thr Ser Pro  
 20 25 30  
 Pro Gly Ala Pro Pro Ala Val Trp Pro Thr Ser Ala Pro Pro Ile Ala  
 35 40 45  
 Thr Ser Thr Ser Trp Lys Cys Pro Thr Pro Arg Pro Pro Pro Gln Trp  
 50 55 60  
 Ala Gly Pro Ser Ala Ser Ala Leu Asp Ala Asn Pro Pro Ser Ser Ala  
 65 70 75 80  
 Leu Thr Arg Ser Lys Ala Thr  
 85

<210> 1077  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 1077



nnaacgcgtaa cgcgcctcgc gacgcgcctc cacagcatgt cgaccaagtg gacgtgcaat  
 60  
 gcaaacgagg caacatgttt gcgcctcgcc ggagcaccct caccagcgga tgctttgttt  
 120  
 caccagagt ttacatatcc aatttttggga gaggtgagg caatttacgg ctacaacggc  
 180  
 ttgcacatga atcttgctt tgcgagcggc agcctggtgc cgtcgctcga aatcacttac  
 240  
 cgcgctaaga atacgacgac gtccgctaaa gtagatgacg tggagcaggc tctgcgcgga  
 300  
 gtgctcccgc cagatgtcgt tactcctgca gaacttgatg ctatcggtgc acgcgacgcc  
 360  
 agggcggtcc gggcgcatTT acgcgcgcgg gcaccaagat tgcgacgtac actcgcgcg  
 419

<210> 1078

<211> 139

<212> PRT

<213> Homo sapiens

<400> 1078

Xaa	Arg	Val	Thr	Arg	Leu	Ala	Thr	Arg	Leu	His	Ser	Met	Ser	Thr	Lys
1				5				10						15	
Trp	Thr	Cys	Asn	Ala	Asn	Glu	Ala	Thr	Cys	Leu	Arg	Leu	Ala	Gly	Ala
			20					25					30		
Pro	Ser	Pro	Ser	Asp	Ala	Leu	Phe	His	Pro	Glu	Phe	Thr	Tyr	Pro	Ile
			35				40					45			
Phe	Gly	Glu	Ala	Glu	Ala	Ile	Tyr	Gly	Tyr	Asn	Gly	Leu	His	Met	Asn
			50			55				60					
Leu	Ala	Phe	Ala	Ser	Gly	Ser	Leu	Val	Pro	Ser	Leu	Glu	Ile	Thr	Tyr
65					70				75					80	
Arg	Ala	Lys	Asn	Thr	Thr	Thr	Ser	Ala	Lys	Val	Asp	Asp	Val	Glu	Gln
			85					90					95		
Ala	Leu	Arg	Gly	Val	Leu	Pro	Pro	Asp	Val	Val	Thr	Pro	Ala	Glu	Leu
			100					105					110		
Asp	Ala	Ile	Val	Ala	Arg	Asp	Ala	Ala	Val	Arg	Ala	His	Leu	Arg	
			115				120					125			
Arg	Arg	Ala	Pro	Arg	Leu	Arg	Arg	Thr	Leu	Ala					
			130				135								

<210> 1079

<211> 584

<212> DNA

<213> Homo sapiens

<400> 1079

acgcgtgaag ggtctgcagc ctgtacaact cagacatgct tcacgtgggc tcagccagtc  
 60  
 agccttgagg aatgtacccc catgctgtgg catctacaat cggcctcctg ttcttactct  
 120  
 gctcaaactg ctccccagc cagcagggag gggaaccatg ctgcctgctg acctgggtag  
 180  
 ttctatttag gtcttgtag acaacagtgg gcaaggtgat gccctctgtg accaaaagta  
 240

ttacccecaa gttccccag gccctccctt tegtctgcaa agacacacat ctgtttcact  
 300  
 gtgtcttctg caaagacaca catctgtttc actgggggtt tctgcaaaga caccatttg  
 360  
 tttccctttt taagggtttt cccctccatc ttgtctattt ttaaaaaaat aaaccgggtt  
 420  
 cccaggatag cttccccccc cagatcaaga gcccatgtga aatgaggggg ccgacttgac  
 480  
 cacagcacct tgttcctttc tgtaatctag acacttctgc acaatagagg gccacccct  
 540  
 caagggcaca ggccatggtt tgtcctcagg ctccctccac gcgt  
 584

&lt;210&gt; 1080

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1080

Met Leu His Val Val Ser Ala Ser Gln Pro Trp Glu Met Tyr Pro His  
 1 5 10 15  
 Ala Val Ala Ser Thr Ile Gly Leu Leu Phe Leu Leu Cys Ser Asn Cys  
 20 25 30  
 Phe Pro Ser Gln Gln Gly Gly Glu Pro Cys Cys Leu Leu Thr Trp Val  
 35 40 45  
 Val Leu Phe Arg Ser Cys Asp Thr Thr Val Gly Lys Val Met Pro Ser  
 50 55 60  
 Val Thr Lys Ser Ile Tyr Pro Lys Phe Pro Gln Ala Leu Pro Phe Val  
 65 70 75 80  
 Cys Lys Asp Thr His Leu Phe His Cys Val Phe Cys Lys Asp Thr His  
 85 90 95  
 Leu Phe His Trp Gly Phe Leu Gln Arg His Pro Phe Val Ser Pro Phe  
 100 105 110  
 Lys Gly Phe Pro Leu His Leu Val Tyr Phe  
 115 120

&lt;210&gt; 1081

&lt;211&gt; 3077

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1081

naaccagtag tagaagtcta ttcttgttcc tattgtacaa attcgccaat attcaacagc  
 60  
 gttcttaaac tgaacaagca tatcaaagag aatcataaaa acattccctt ggccctgaat  
 120  
 tatatccaca atgggaagaa atccagggcc ttaagccccc tatctcctgt ggccatagag  
 180  
 cagacatctc ttaagatgat gcaggcagta ggaggtgcac ctgcacgtcc cactggagaa  
 240  
 tatatctgta atcaatgtgg tgctaagtac acatccctag acagctttca gactcaccca  
 300  
 aaaactcatc tcgacactgt gtttccaaaa ttgacctgtc ctgagtgcaa caaggaattc  
 360

cccaaccaag aatccttgct gaagcatgtt accattcact ttatgatcac ttcaacgtat  
420  
tacatctgtg agagttgtga caagcaattc acatcagtgg atgaccttca gaaacacctg  
480  
ctggacatgc acacctttgt cttctttcgc tgcaccctct gccaggaagt ttttgactca  
540  
aaagtctcca ttcagctcca cttggctgtg aagcacagta acgaaaagaa agtctatagg  
600  
tgcacatctt gcaactggga cttccgcaac gaaactgact tgcagctcca tgtgaaacac  
660  
aaccacctgg aaaaccaagg gaaagtgcac aagtgcattt tctgcggtga gtcctttggc  
720  
accgaggtgg agctgcaatg ccacatcacc actcacagta agaagtacaa ctgcaagttc  
780  
tgtagcaaag ccttccatgc gatcattttg ttagaaaaac acttgcgaga aaaacactgt  
840  
gtattcgaaa ccaagacacc caactgtgga acaaattggag cttccgagca agtgcagaaa  
900 agctgcagac tttgctgacc aacagccagg agtcccacaa cagtcacgat 960  
gggagcgaag aagacgttga cacctctgag cctatgtacg gctgcgacat ttgtggggca  
1020  
gcctacacta tggaaacttt gctgcagaat caccagctcc gagaccacaa catcagacct  
1080  
ggagaaagtg ccatcgtgaa aaagaaagct gagctcatta aaggaatta caagtgcagc  
1140  
gtgtgctctc gaaccttctt ctccgaaaat ggcctccggg aacatatgca gaccaccta  
1200  
ggccctgtca aacactacat gtgccctatt tgcggagagc ggtttccctc ctttttaact  
1260  
cttactgaac acaaagtcac gcatagtaag agtcttgata ctggaaactg ccggatttgc  
1320  
aagatgcctc tccagagtga agaggagttt ttagagcatt gccaaatgca ccctgacttg  
1380  
aggaattccc tgacaggctt tcgctgcgtg gtgtgcatgc agacagtgc ctccaccttg  
1440  
gaactcaaaa tccatgggac gttccacatg caaaagacag ggaatgggtc tgcagttcag  
1500  
accacagggc ggggccagca cgtccaaaaa ctgtataagt gcgcatcttg cctcaaagaa  
1560  
ttccgttcca agcaagatct ggtgaaactt gatataatg gctgccata tggctctgtg  
1620  
gccggctgcg tgaatctcag taagagcgcc agcccaggca ttaacgtccc tcccggcacg  
1680  
aatagaccag gcttgggcca gaatgagaat ctgagtcca ttggggaaag gcaagggtgg  
1740  
gggactgaaa cacgctgctc tagctgcaac gttaagtttg agtctgaaag tgaactccag  
1800  
aaccacatcc aaaccatcca ccgagagctc gtgccagaca gcaacagcac acagttgaaa  
1860  
acgccccaaag tatcaccaat gccagaatc agtccctccc agtcggatga gaagaagacc  
1920  
tatcaatgca tcaagtgtca gatggttttc tacaatgaat gggatattca ggttcattgt  
1980  
gcaaatcaca tgattgatga aggactgaac catgaatgca aactctgcag ccagaccttt  
2040

gactctcctg ccaaactcca gtgccacctg atagagcaca gcttcgaagg gatgggagggc  
 2100  
 accttcaagt gtccagtctg ctttacagta tttgttcaag caaacaagtt gcagcagcat  
 2160  
 attttctctg cccatggaca agaagacaag atctatgact gtacacaatg tccacagaag  
 2220  
 tttttcttcc aaacagagct gcagaatcat acaatgaccc aacacagcag ttagtgcaag  
 2280  
 tacagtctct caaggagaat tgattttgtg gcacaaaaag ggaacatggt ttactctttg  
 2340  
 cagaaactt tcattgttaa tgtatattat tcagaaacat tgtattgtac cataaaactt  
 2400  
 gtattatcaa actgttggat gttcatgtgt ttgaactttt gcgcaccgga tagaccctt  
 2460  
 gtatataaag tgttgccat gtattatgtc gtctgatact aaaatgggtct tataaagaca  
 2520  
 agtggacttg ggccctattc aggcaagatt aaaaaaaaaa aaaagactat gaccaaaatg  
 2580  
 gcttaagata aagtattttt aaggaagaaa gattaaaaac aactgttata catgagacta  
 2640  
 tggttggact tccttttctt tacacttaag cctagaattt ctcttttaggt atatcagcgc  
 2700  
 ttaaatccaa gactattttt tattgctgaa gattcttgca aaccatgaag agatgttctc  
 2760  
 acagaacaga accccacagc tggataaggc ccgtatatat atatttgtaa gccttgcaat  
 2820  
 gtgacaggta gcatcactat atatgcaata gttgttatgt agactgtcaa agaatttttt  
 2880  
 tttccctgga tacatttgaa gctttgagtg ttcaagggtt tccttaatga tttcacgcag  
 2940  
 ccaaattctt gaatcagttg aactaacctg tatgttactg ttattaatgt ttactctgca  
 3000  
 gtctgaacct ggagattact ggaattgttt tccaagagga aataaattca gtttaccatt  
 3060  
 aggaaaaaaaa aaaaaaa  
 3077

&lt;210&gt; 1082

&lt;211&gt; 757

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1082

Xaa	Pro	Val	Val	Glu	Val	Tyr	Ser	Cys	Ser	Tyr	Cys	Thr	Asn	Ser	Pro
1				5					10					15	
Ile	Phe	Asn	Ser	Val	Leu	Lys	Leu	Asn	Lys	His	Ile	Lys	Glu	Asn	His
			20					25					30		
Lys	Asn	Ile	Pro	Leu	Ala	Leu	Asn	Tyr	Ile	His	Asn	Gly	Lys	Lys	Ser
			35				40					45			
Arg	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Val	Ala	Ile	Glu	Gln	Thr	Ser	Leu
			50			55				60					
Lys	Met	Met	Gln	Ala	Val	Gly	Gly	Ala	Pro	Ala	Arg	Pro	Thr	Gly	Glu
65					70				75					80	
Tyr	Ile	Cys	Asn	Gln	Cys	Gly	Ala	Lys	Tyr	Thr	Ser	Leu	Asp	Ser	Phe

1017

515                      520                      525  
 Lys Leu Asp Ile Asn Gly Leu Pro Tyr Gly Leu Cys Ala Gly Cys Val  
 530                      535                      540  
 Asn Leu Ser Lys Ser Ala Ser Pro Gly Ile Asn Val Pro Pro Gly Thr  
 545                      550                      555                      560  
 Asn Arg Pro Gly Leu Gly Gln Asn Glu Asn Leu Ser Ala Ile Gly Glu  
 565                      570                      575  
 Arg Gln Gly Gly Gly Thr Glu Thr Arg Cys Ser Ser Cys Asn Val Lys  
 580                      585                      590  
 Phe Glu Ser Glu Ser Glu Leu Gln Asn His Ile Gln Thr Ile His Arg  
 595                      600                      605  
 Glu Leu Val Pro Asp Ser Asn Ser Thr Gln Leu Lys Thr Pro Gln Val  
 610                      615                      620  
 Ser Pro Met Pro Arg Ile Ser Pro Ser Gln Ser Asp Glu Lys Lys Thr  
 625                      630                      635                      640  
 Tyr Gln Cys Ile Lys Cys Gln Met Val Phe Tyr Asn Glu Trp Asp Ile  
 645                      650                      655  
 Gln Val His Val Ala Asn His Met Ile Asp Glu Gly Leu Asn His Glu  
 660                      665                      670  
 Cys Lys Leu Cys Ser Gln Thr Phe Asp Ser Pro Ala Lys Leu Gln Cys  
 675                      680                      685  
 His Leu Ile Glu His Ser Phe Glu Gly Met Gly Gly Thr Phe Lys Cys  
 690                      695                      700  
 Pro Val Cys Phe Thr Val Phe Val Gln Ala Asn Lys Leu Gln Gln His  
 705                      710                      715                      720  
 Ile Phe Ser Ala His Gly Gln Glu Asp Lys Ile Tyr Asp Cys Thr Gln  
 725                      730                      735  
 Cys Pro Gln Lys Phe Phe Phe Gln Thr Glu Leu Gln Asn His Thr Met  
 740                      745                      750  
 Thr Gln His Ser Ser  
 755

&lt;210&gt; 1083

&lt;211&gt; 516

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1083

naccggtgag gcatctctgc aggggtgtccg gctagctaag cagagcggct ggaaggctcc  
 60  
 agatccgaat aacctgcccc ctcccgtga gcccgaggaa gaggagaaga agtgaccgat  
 120  
 ccactgaccc cggttctgtc ggccaattgg gatgaagagc gcagttggaa gctgcttaac  
 180  
 tacgagcgac agggcggata caccggcett cgtaaggctt tgacgatgcc gcctgacgac  
 240  
 gttgtctcgc tggtaagga cgtaacctg cgtggccgtg gtggcgccgg gttccccacc  
 300  
 ggcatgaagt ggtccttcgt gcctaaggac aatcccaacc cgacctacct cgttgtcaac  
 360  
 ggcgacgagt ctgagccggg cacgtgcaag gacatgccgc tcatgatggc ctccccgcac  
 420  
 accctcgtcg agggcgatcat cattgcctcc tacgccatca aggccaagat ggccttcac  
 480

tacatccgcg gtgaggtgct gcacgtcgtc cgacgc  
516

<210> 1084  
<211> 142  
<212> PRT  
<213> Homo sapiens

<400> 1084  
Ala Arg Gly Arg Gly Glu Glu Val Thr Asp Pro Leu Thr Pro Val Leu  
1 5 10 15  
Ser Ala Asn Trp Asp Glu Glu Arg Ser Trp Lys Leu Leu Asn Tyr Glu  
20 25 30  
Arg Gln Gly Gly Tyr Thr Gly Leu Arg Lys Ala Leu Thr Met Pro Pro  
35 40 45  
Asp Asp Val Val Ser Leu Val Lys Asp Ala Asn Leu Arg Gly Arg Gly  
50 55 60  
Gly Ala Gly Phe Pro Thr Gly Met Lys Trp Ser Phe Val Pro Lys Asp  
65 70 75 80  
Asn Pro Asn Pro Thr Tyr Leu Val Val Asn Gly Asp Glu Ser Glu Pro  
85 90 95  
Gly Thr Cys Lys Asp Met Pro Leu Met Met Ala Ser Pro His Thr Leu  
100 105 110  
Val Glu Gly Val Ile Ile Ala Ser Tyr Ala Ile Lys Ala Lys Met Ala  
115 120 125  
Phe Ile Tyr Ile Arg Gly Glu Val Leu His Val Val Arg Arg  
130 135 140

<210> 1085  
<211> 374  
<212> DNA  
<213> Homo sapiens

<400> 1085  
acgcgtagcg tttatacata gttttcacgt agccatacct ccatgtgggt catagttca  
60  
aaatcgtaga gtgtctctga gctgcctagg gggctgtttg cgatcttgcg gacagtgtct  
120  
atatccacaa ggttcagctc cgccaggaga ctgtcgccga tcattttcag gaagttttct  
180  
ttgctgcgtt cgtagtcttg gtgcaggctg aagctgtagt cgcttttgta gatgtcccgg  
240  
tagaagaact cgggcagggt gcctttcatg gcttccagga tgacggggtt gctcatcccc  
300  
tgcccgtca gaacaccgg gtacaccagg gaagagcgga tcatgtcgtc ctcaaggtag  
360  
ggggcggcga attc  
374

<210> 1086  
<211> 110  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 1086

Met Ile Arg Ser Ser Leu Val Tyr Pro Gly Val Leu Ser Gly His Gly  
 1 5 10 15  
 Met Ser Lys Pro Val Ile Leu Glu Ala Met Lys Gly Thr Leu Pro Glu  
 20 25 30  
 Phe Phe Tyr Arg Asp Ile Tyr Lys Ser Asp Tyr Ser Phe Asp Leu His  
 35 40 45  
 Gln Asp Tyr Glu Arg Ser Lys Glu Asn Phe Leu Lys Met Ile Gly Asp  
 50 55 60  
 Ser Leu Leu Ala Glu Leu Asn Leu Val Asp Ile Asp Thr Val Arg Lys  
 65 70 75 80  
 Ile Ala Asn Ser Pro Leu Gly Ser Ser Glu Thr Leu Tyr Asp Phe Glu  
 85 90 95  
 Arg Met Thr His Met Glu Val Trp Leu Arg Glu Asn Tyr Val  
 100 105 110

&lt;210&gt; 1087

&lt;211&gt; 423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1087

atgacgatcg tggccccacc accgccgacc gggggcgccg ccattagctt ccttgctgac  
 60  
 ggcattccacc cgcacgacct cggccagggtc ctcgacgacc acggcgtgag catccgggtg  
 120  
 nggcaccact gtgcctggcc catccaccgg agtctagggg tgcaatccac cgcccgtgca  
 180  
 tcgttctact tctacaacac tttcccgaa gtggatgcgt tagcgtcggc ggtgcgggcc  
 240  
 gcccggaat ttttcggagt gcattaggat tggctgaac gtgaaccttg aatccatgta  
 300  
 ccaggaagtc atcctggacc actacaagaa tcccacgcac gcagggttga aggctccctt  
 360  
 tgatgccgaa gtgcaccatg tgaaccttc ctgcggtgac ganaccgtct ccgggtgaag  
 420  
 ctt  
 423

&lt;210&gt; 1088

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1088

Met Thr Ile Val Ala Pro Pro Pro Pro Thr Ala Gly Ala Ala Ile Ser  
 1 5 10 15  
 Phe Leu Val Asp Gly Ile His Pro His Asp Leu Gly Gln Val Leu Asp  
 20 25 30  
 Asp His Gly Val Ser Ile Arg Val Xaa His His Cys Ala Trp Pro Ile  
 35 40 45  
 His Arg Ser Leu Gly Val Gln Ser Thr Ala Arg Ala Ser Phe Tyr Phe  
 50 55 60  
 Tyr Asn Thr Phe Pro Glu Val Asp Ala Leu Ala Ser Ala Val Arg Ala





85  
Lys Leu Ala Trp Glu Asn Thr  
100

90

95

<210> 1091  
<211> 438  
<212> DNA  
<213> Homo sapiens

<400> 1091  
acgcgtaagt taactgaagt tgtcatgagt ttattactgg aatatcacta ttcaaagtcg  
60  
gcgattatta cggttatat gaacgaagtg tatttggtc aagtaggtaa tgaggggctt  
120  
catggctttg ccgaggcgag tcagcacttt tttggacgac ctttaaaaga acttaatatc  
180  
gacgagtttg ccttgtagt aggaatggtg aaaggcctt ctatttataa tcctgaacga  
240  
caccctaaac gtgctttatc acgcagaaat acggtattag caattttaaa aagccaagat  
300  
cgtttaaccg agtcggatta taatatttta cggaaacaac ccattcgctt ggcagataaa  
360  
caccaagaac gctcagtata tggggattat ttagatctag tctctatgca gttatcgcca  
420  
gactttgatc gctgcatg  
438

<210> 1092  
<211> 146  
<212> PRT  
<213> Homo sapiens

<400> 1092  
Thr Arg Lys Leu Thr Glu Val Val Met Ser Leu Leu Leu Glu Tyr His  
1 5 10 15  
Tyr Ser Lys Ser Ala Ile Ile Thr Ala Tyr Met Asn Glu Val Tyr Leu  
20 25 30  
Ala Gln Val Gly Asn Glu Gly Leu His Gly Phe Ala Glu Ala Ser Gln  
35 40 45  
His Phe Phe Gly Arg Pro Leu Lys Glu Leu Asn Ile Asp Glu Phe Ala  
50 55 60  
Leu Leu Val Gly Met Val Lys Gly Pro Ser Ile Tyr Asn Pro Glu Arg  
65 70 75 80  
His Pro Lys Arg Ala Leu Ser Arg Arg Asn Thr Val Leu Ala Ile Leu  
85 90 95  
Lys Ser Gln Asp Arg Leu Thr Glu Ser Asp Tyr Asn Ile Leu Arg Lys  
100 105 110  
Gln Pro Ile Arg Leu Ala Asp Lys His Gln Glu Arg Ser Val Tyr Gly  
115 120 125  
Asp Tyr Leu Asp Leu Val Ser Met Gln Leu Ser Arg Asp Phe Asp Arg  
130 135 140  
Cys Met  
145

<210> 1093  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 1093  
 cgcgttctct acttcgagag ctatgtcggt atcgatccag gcatgaccac ccttgagaaa  
 60  
 ggtcagctgc tgaacgacga gcagtacttc gaagcgctgg aagagttcgg cgacgatttc  
 120  
 gatgcccgcg tgggtgccga agctgtccgt gaactgctgc acgctatcga cctggaacac  
 180  
 gagattggcc gtctgctga acaaattccg caaaccaact ccgaaaccaa gatcaagaag  
 240  
 ctgtccaagc gtctgaagtt gatggaagcc ttccaggggt ccggcaactt gccagagtgg  
 300  
 atggtgctga ccgttctgcc gggtctgccg ccagatctgc gtccgctggg a  
 351

<210> 1094  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1094  
 Arg Val Leu Tyr Phe Glu Ser Tyr Val Val Ile Asp Pro Gly Met Thr  
 1 5 10 15  
 Thr Leu Glu Lys Gly Gln Leu Leu Asn Asp Glu Gln Tyr Phe Glu Ala  
 20 25 30  
 Leu Glu Glu Phe Gly Asp Asp Phe Asp Ala Arg Met Gly Ala Glu Ala  
 35 40 45  
 Val Arg Glu Leu Leu His Ala Ile Asp Leu Glu His Glu Ile Gly Arg  
 50 55 60  
 Leu Arg Glu Gln Ile Pro Gln Thr Asn Ser Glu Thr Lys Ile Lys Lys  
 65 70 75 80  
 Leu Ser Lys Arg Leu Lys Leu Met Glu Ala Phe Gln Gly Ser Gly Asn  
 85 90 95  
 Leu Pro Glu Trp Met Val Leu Thr Val Leu Pro Val Leu Pro Pro Asp  
 100 105 110  
 Leu Arg Pro Leu Val  
 115

<210> 1095  
 <211> 619  
 <212> DNA  
 <213> Homo sapiens

<400> 1095  
 nnacgcgtga gatccagcca ggccctcaac gaggacatcg tgcgagtgtc cagccggctg  
 60  
 gagcacctgg agaaggagct gtccgagaag agcgggcagc tgcggcaggg cagcgcccag  
 120  
 agccagcggc agatccgcgg ggagatcgac agcctgcgcc aggagaagga ctactgtctc  
 180

aagcagcgcc tggagatcga cggcaagctg aggcagggga gtctgctgtc ccccgaggag  
 240  
 gagcggacgc tgttccagtt ggatgaggcc atcgaggccc tggatgctgc cattgagtat  
 300  
 aagaatgagg ccatcacatg ccgccagcgg gtgcttcggg cctcagcctc gttgctgtcc  
 360  
 cagtgcgaga tgaacctcat ggccaagctc agctacctct catcctcaga gaccagagcc  
 420  
 ctctctgca agtattttga caaggtgggc cagcagccca tggccccccc agctcctcct  
 480  
 cacggcacgt gtggggaggt gtctcatggc agctgctcca gcggatatcc cgtttcctcc  
 540  
 cagactgggg gacagaatca ggaccaactc atctgcaggg ccgcctgacc ttaaagccta  
 600  
 ttttacttgt gaacctaag  
 619

<210> 1096

<211> 195

<212> PRT

<213> Homo sapiens

<400> 1096

Xaa	Arg	Val	Arg	Ser	Ser	Gln	Ala	Leu	Asn	Glu	Asp	Ile	Val	Arg	Val
1				5					10					15	
Ser	Ser	Arg	Leu	Glu	His	Leu	Glu	Lys	Glu	Leu	Ser	Glu	Lys	Ser	Gly
			20					25					30		
Gln	Leu	Arg	Gln	Gly	Ser	Ala	Gln	Ser	Gln	Arg	Gln	Ile	Arg	Gly	Glu
			35				40					45			
Ile	Asp	Ser	Leu	Arg	Gln	Glu	Lys	Asp	Ser	Leu	Leu	Lys	Gln	Arg	Leu
	50				55					60					
Glu	Ile	Asp	Gly	Lys	Leu	Arg	Gln	Gly	Ser	Leu	Leu	Ser	Pro	Glu	Glu
65					70					75				80	
Glu	Arg	Thr	Leu	Phe	Gln	Leu	Asp	Glu	Ala	Ile	Glu	Ala	Leu	Asp	Ala
			85						90					95	
Ala	Ile	Glu	Tyr	Lys	Asn	Glu	Ala	Ile	Thr	Cys	Arg	Gln	Arg	Val	Leu
			100				105						110		
Arg	Ala	Ser	Ala	Ser	Leu	Leu	Ser	Gln	Cys	Glu	Met	Asn	Leu	Met	Ala
			115				120					125			
Lys	Leu	Ser	Tyr	Leu	Ser	Ser	Ser	Glu	Thr	Arg	Ala	Leu	Leu	Cys	Lys
			130				135					140			
Tyr	Phe	Asp	Lys	Val	Gly	Gln	Gln	Pro	Met	Ala	Pro	Pro	Ala	Pro	Pro
145					150					155				160	
His	Gly	Thr	Cys	Gly	Glu	Val	Ser	His	Gly	Ser	Cys	Ser	Ser	Gly	Tyr
			165						170					175	
Pro	Val	Ser	Ser	Gln	Thr	Gly	Gly	Gln	Asn	Gln	Asp	Gln	Leu	Ile	Cys
			180					185					190		
Arg	Ala	Ala													
			195												

<210> 1097

<211> 5108

<212> DNA

<213> Homo sapiens

<400> 1097  
nacgcgttgt cttctctccg taccaccccc cccttcacac tctttttattc aagtacctat  
60  
acatacatga cattgaaaaa actatgtttt caatttaagc tatgtacata ccggggaaat  
120  
gacaaagagt tcacttccca tgagatcaaa caccctcaca gttcctgtgc tttcggcata  
180  
ggccagtagg gtacaatcgt aactccatgc taccctgtct cactgggggtt tcgggtcttt  
240  
cggaacttga catttcccaa taatggatgt aaaatcatct tttgcagacc tgatttccac  
300  
acactgatct tgaacagcag ccaaaagctt tccattgctt gcaagtacca aatgccagtt  
360  
tatctgttta ttaaccaagc gaaccagtcc atcagggagc aaaaaagggtg ccgggctgta  
420  
ccagatgtat tggcgtaaaa ataataaacg atctcgaatt gctttcgtga tgataaagga  
480  
tgcaccatgt ttttggttgc ctctaggctg tacttcagtc tccgggtggc actcgggtgtt  
540  
gaccaacaag tcatagagaa tcgtctcctc gactcctccg ctgcctgagt cctcggcgaa  
600  
catggcggcc cccgagtcag ggccggcttt gagtccaggc actgcagagg cctagaggca  
660  
acaaaaaaca tgggtgcatcc tttatcatca cgaaagcaat tcgagatcgt ttattatttt  
720  
tacgccaata catctggtac agcccggcac cttttttgct ccctgatgga ctggttcgct  
780  
tggttaataa acagataaac tggcatttgg tacttgcaag caatagcact agagtgcac  
840  
tatacctgtg aacgaaatga tcaactctgt ctttgctatg acctactaga atgtctgcca  
900  
gaaagaggat atggtgataa gacagaggca accacaaagc ttcattgacat ggtagaccaa  
960  
ctggaacaaa ttctcagtgt gtcagagctt ttggaaaaac atggactcga gaaaccaatt  
1020  
tcatttggtta aaaacactca atctagctca gaagaggcac gcaagctgat ggtagattg  
1080  
acgaggcaca ctggccggaa gcagcctcct gtcagtgaat ctcatggag aacgttgctg  
1140  
caagacatgt taactatgca gcagaatgta tacacatgtc tagattctga tgcttgcctat  
1200  
gagatattta cagaaagcct tctgtgctct agtcgccttg aaaacatcca cctggctgga  
1260  
cagatgatgc actgcagtgc ttgttcagaa aatcctccag ctggtatagc ccataaaggg  
1320  
aaacccccact acaggggtcag ctacgaaaag agtattgact tggttttggc tgccagcaga  
1380  
gagtacttca attcttctac caacctcact gatagctgca tggatctagc caggtgctgc  
1440  
ttacaactga taacagacag acccctgcc attcaagagg agctagatct tatccaagcc  
1500  
gttgatgtc ttgaagaatt tggggtaaag atcctgcctt tgcaagtgcg attgtgcctt  
1560

gatcggatca gtctcatcaa ggagtgtatt tcccagtcce ccacatgcta taaacaatcc  
1620  
accaagcttc tgggccttgc tgagctgctg agggttgcag gtgagaaccc agaagaaagg  
1680  
cggggacagg ttctaatacct tttagtggag caggcacttc gcttccatga ctacaaagca  
1740  
gccagtatgc attgtcagga gctgatggcc acaggttatc ctaaaagttg ggatgtttgt  
1800  
agccagttag gacaatcaga aggttaccag gacttggcca ctctcaaga gctcatggct  
1860  
tttgctttga cacattgccc tcttagcagc attgaacttc ttttggcagc tagcagctct  
1920  
ctgcagacag aaattcttta tcaaagagtg aatttccaga tccatcatga aggaggggaa  
1980  
aatatcagtg cttcaccatt aactagtaaa gcagtacaag aggatgaagt aggtgttcca  
2040  
ggtagcaatt cagctgacct attgcgctgg accactgcta ccacatgaa agtcctttcc  
2100  
aacaccacaa ccaccaccaa agcgggtgctg caggccgtca gtgatgggca gtggtggaag  
2160  
aagtctttaa cttaccttcg accccttcag gggcaaaaat gtggtggtgc atatcaaac  
2220  
ggaactacag ccaatgaaga tctagagaaa caagggtgtc atccttttta tgaatctgtc  
2280  
atctcaaac cttttgtcgc tgagtctgaa gggacctatg acacctatca gcatgttcca  
2340  
gtggaaagct ttgcagaagt attgctgaga actggaaaat tggcagaggc taaaaataaa  
2400  
ggagaagtat ttccaacaac tgaagttctc ttgcaactag caagtgaagc cttgccaaat  
2460  
gacatgacct tggctcttgc ttaccttctt gccttaccac aagtgttaga tgctaaccgg  
2520  
tgctttgaaa agcagtccecc ctctgcatta tctctccagc tggcagcgta ttactatagc  
2580  
ctccagatct atgcccgaat ggccccatgt ttcagggaca agtgccatcc tctttacagg  
2640  
gctgatccca aagaactaat caagatggtc accaggcatg tgactcgaca tgagcacgaa  
2700  
gcctggcctg aagaccttat ttactgacc aagcagttac actgctacaa tgaacgtctc  
2760  
ctggatttca ctcaggcgca gatccttcag ggccttcgga aggggtgtgga cgtgcagcg  
2820  
tttactgcag atgaccagta taaaagggaa actatccttg gtctggcaga aactctagag  
2880  
gaaagcgtct acagcattgc tatttctctg gcacaacgtt acagtgtctc ccgctgggaa  
2940  
gtttttatga cccatttgga gttcccttc acggacagtg gtttgtccac actagaaatc  
3000  
gaaaatagag cccaagacct tcatctcttt gagactttga agactgatcc agaagccttt  
3060  
caccagcaca tgggtcaagta tatttaccct actattgggtg gctttgatca cgaaaggctg  
3120  
cagtattatt tcaactcttct ggaaaactgt ggctgtgcag atttggggaa ctgtgccatt  
3180

aaaccagaaa cccacattcg actgctgaag aagtttaagg ttgttgcatc aggtcttaat  
3240  
tacaaaaagc tgacagatga aaacatgagt cctcttgaag cattggagcc agttctttca  
3300  
agtcaaaata tcttgtctat ttccaaactt gtcccaaaa tccctgaaaa ggatggacag  
3360  
atgctttccc caagctctct gtacaccatc tggttacaga agttgttctg gactggagac  
3420  
cctcatctca ttaaacaagt cccaggtctt tcaccggagt ggcttcatgc ctatgatgtc  
3480  
tgcataaagt actttgatcg tctccacca ggtgacctca tcaactgtgt agatgcagtt  
3540  
acattttctc caaaagctgt gaccaagctg tctgtggaag cccgtaaaga gatgactaga  
3600  
aaggctatta agactgtcaa acattttatt gagaagccaa ggaaaagaaa ctcagaagac  
3660  
gaagctcaag aagctaagga ttctaaggtt acctatgcag atactttgaa tcatctggag  
3720  
aaatcacttg cccacctgga aacctgagc cacagcttca tcctttctct gaagaatagt  
3780  
gagcaggaaa cactgcaaaa atacagtcac ctctatgac tgtcccgatc agaaaaagag  
3840  
aaacttcatg atgaagctgt ggctatttgt ttagatggtc agcctctagc aatgattcag  
3900  
cagctgctag aggtggcagt tggccctctt gacatctcac ccaaggatat agtgcagagt  
3960  
gcaatcatga aaataatttc tgcattgagt ggtggcagt ctgaccttg tgggccaagg  
4020  
gacctactga aggtcctgga aggtgttgtt gcagcagtc acaccagtgt ggacaagggg  
4080  
gaggagctgg ttccacctga ggacctgctg gagtggctgc ggcctttctg tgctgatgac  
4140  
gcctggcccg tgcggccccg cattcacgtg ctgcagattt tggggcaatc atttcacctg  
4200  
actgaggagg acagcaagct cctcgtgttc tttagaactg aagccattct caaagcctcc  
4260  
tggccccaga gacaggtaga catagctgac attgagaatg aagagaaccg ctactgtcta  
4320  
ttcatggaac tcctggaatc tagtcaccac gaggtgaat ttcagcactt ggttttactt  
4380  
ttgcaagctt ggccacctat gaaaagtga tatgtcataa ccaataatcc atgggtgaga  
4440  
ctagctacag tgatgctaac cagatgtacg atggagaaca aggaaggatt ggggaatgaa  
4500  
gttttgaaaa tgtgtcgtc tttgtataac accaagcaga tgctgcctgc agaggggtgtg  
4560  
aaggagctgt gtctgctgct gcttaaccag tccctcctgc ttccatctct gaaacttctc  
4620  
ctcgagagcc gagatgagca tctgcacgag atggcactgg agcaaatac ggagtcact  
4680  
acggtgaatg attccaattg tgaccaagaa cttctttccc tgctcctgga tgccaagctg  
4740  
ctggtgaagt gtgtctccac tcccttctat ccacgtattg ttgaccacct cttggctagc  
4800

ctccagcaag ggcgctggga tgcagaggag ctgggcagac acctgcggga ggccggccat  
 4860  
 gaagccgaag cccgggtctct ccttctggcc gtgaggggga ctcaccaggc cttcagaacc  
 4920  
 ttcagtacag ccctccgcgc agcacagcac tgggtgtgag ggccacctgt ggccctgctc  
 4980  
 cttagcagaa aaagcatctg gagttgaatg ctgttcccag aagcaacatg tgtatctgcc  
 5040  
 gattgttctc catggttcca acaaattgca aataaaactg tatggaaacg atgaaaaaaaa  
 5100  
 aaaaaaaaa  
 5108

<210> 1098  
 <211> 1336  
 <212> PRT  
 <213> Homo sapiens

<400> 1098  
 Met Val Asp Gln Leu Glu Gln Ile Leu Ser Val Ser Glu Leu Leu Glu  
 1 5 10 15  
 Lys His Gly Leu Glu Lys Pro Ile Ser Phe Val Lys Asn Thr Gln Ser  
 20 25 30  
 Ser Ser Glu Glu Ala Arg Lys Leu Met Val Arg Leu Thr Arg His Thr  
 35 40 45  
 Gly Arg Lys Gln Pro Pro Val Ser Glu Ser His Trp Arg Thr Leu Leu  
 50 55 60  
 Gln Asp Met Leu Thr Met Gln Gln Asn Val Tyr Thr Cys Leu Asp Ser  
 65 70 75 80  
 Asp Ala Cys Tyr Glu Ile Phe Thr Glu Ser Leu Leu Cys Ser Ser Arg  
 85 90 95  
 Leu Glu Asn Ile His Leu Ala Gly Gln Met Met His Cys Ser Ala Cys  
 100 105 110  
 Ser Glu Asn Pro Pro Ala Gly Ile Ala His Lys Gly Lys Pro His Tyr  
 115 120 125  
 Arg Val Ser Tyr Glu Lys Ser Ile Asp Leu Val Leu Ala Ala Ser Arg  
 130 135 140  
 Glu Tyr Phe Asn Ser Ser Thr Asn Leu Thr Asp Ser Cys Met Asp Leu  
 145 150 155 160  
 Ala Arg Cys Cys Leu Gln Leu Ile Thr Asp Arg Pro Pro Ala Ile Gln  
 165 170 175  
 Glu Glu Leu Asp Leu Ile Gln Ala Val Gly Cys Leu Glu Glu Phe Gly  
 180 185 190  
 Val Lys Ile Leu Pro Leu Gln Val Arg Leu Cys Pro Asp Arg Ile Ser  
 195 200 205  
 Leu Ile Lys Glu Cys Ile Ser Gln Ser Pro Thr Cys Tyr Lys Gln Ser  
 210 215 220  
 Thr Lys Leu Leu Gly Leu Ala Glu Leu Leu Arg Val Ala Gly Glu Asn  
 225 230 235 240  
 Pro Glu Glu Arg Arg Gly Gln Val Leu Ile Leu Leu Val Glu Gln Ala  
 245 250 255  
 Leu Arg Phe His Asp Tyr Lys Ala Ala Ser Met His Cys Gln Glu Leu  
 260 265 270  
 Met Ala Thr Gly Tyr Pro Lys Ser Trp Asp Val Cys Ser Gln Leu Gly



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**